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World Food Needs and Availabilities, 1986/87

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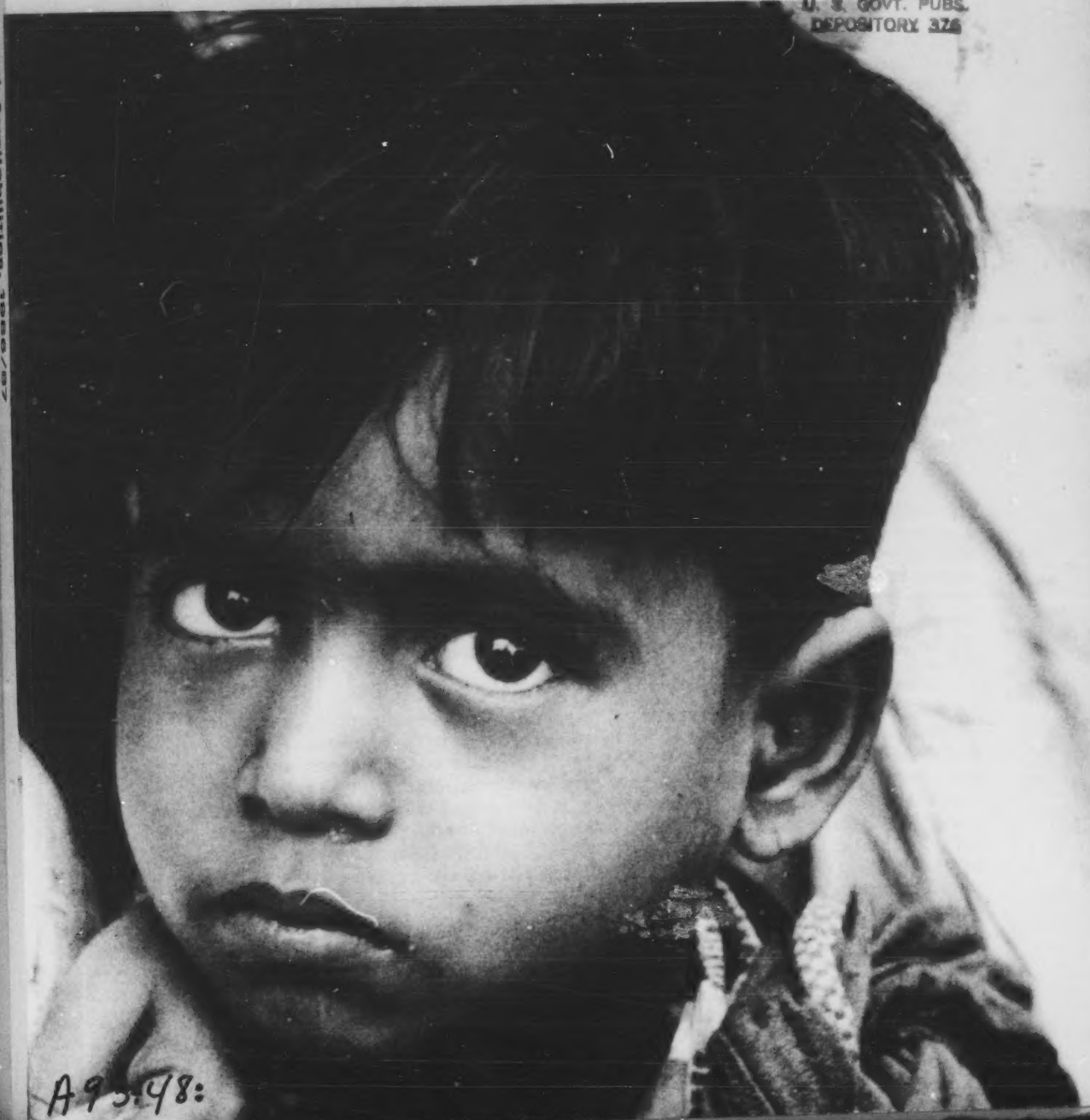

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World Food Needs and Availabilities, 1986/87

PREFACE

As a result of a Presidential Initiative in the summer of 1984, an Interagency Food Aid Analysis Working Group was established to provide the U.S. Government with the best possible food needs assessment for countries in the developing world. This report is prepared under the aegis of the Interagency Working Group.

An assessment of world food needs has serious implications for both donor and recipient countries, and it has the potential to influence the expenditure of many millions of dollars and affect the lives of many millions of people.

It is, therefore, very important that readers clearly understand the issues that the Food Needs and Availabilities report addresses, and those it does not. This report is not an allocation or programming document, but an objective analytical assessment of food needs. Allocation and programming decisions are made in other forums and consider factors in addition to the food needs assessed in this report.

The assessment of food needs presented herein refers to the amount of food needed to cover the difference between a country's domestic food production plus its commercial import capacity, and either of two alternative measures of food need.

The status quo need is based on a country's recently achieved levels of food consumption, while the nutrition-based need is based on FAO's published information on minimum recommended dietary intake for each country. In addition, an estimate is made of the maximum absorbable imports if the highest historical levels of per capita total food use and carryover stocks were to be maintained. This assumes the food delivery systems in most food-aid-recipient countries have been "at capacity" at the highest historical level. None of these measures, taken individually, adequately reflects the range of objectives embodied within P.L. 480 legislation, nor does any one measure capture all factors considered in allocation and programming decisions.

The food need levels reported are for the marketing years 1986/87 and 1987/88. As with any projection, assumptions must be made about future events. The assessment of food needs is based heavily upon projections of food crop production and financial ability to commercially import food. Food production is subject to the vagaries of weather and commercial import capacity is influenced by various international commodity and financial market conditions. Since neither weather nor international markets can be predicted with certainty, the food need levels contained in this report are subject to change.

To reflect current crop conditions and import capacity, each country is reviewed quarterly and an updated food needs level calculated for those countries judged to be facing conditions significantly different from those at the last assessment. For this reason, readers are encouraged to acquire current reports to keep abreast of changing food need levels. Readers are further advised that both the methodology and the data used in the calculations are continually being refined. This effort reflects the continuing commitment of the U.S. Government to respond more rapidly and adequately to the needs of those countries where food commodity assistance can be used for humanitarian purposes and in the mutual interests of the recipient country and the U.S. Government.

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FOREWORD

This is the initial report in the 1986 World Food Needs and Availabilities series. Updates to this report will be published in November 1986, and February and May 1987. The annual reports and supplements serve both the requirement of P.L. 480, as amended, that "global assessments of food production and needs" be submitted to the Congress, and the food needs analysis function of the Food Aid Analysis Working Group. Information provided through these reports to the Executive Branch and the Congress is employed along with other information in making tentative fiscal 1987 and 1988 food aid budget allocations. The main report and the supplements are intended to serve the additional purpose of providing detailed updates on food supplies and additional food needs on both a country-by-country and a world basis. This information is also useful to program and policy officials within donor governments and food-aid-recipient countries, analysts in international organizations and universities, and private agencies involved in food aid distribution. The assembly and maintenance of data for the analysis of food needs is a joint effort of the U.S. Agency for International Development (AID) and USDA.

This report presents two alternative measures of the overall food import requirements (commercial plus concessional) and the additional food needs of each country for 1986/87 and 1987/88. The status quo and nutrition-based assessments are based on two different sets of normative judgments and assumptions regarding the role of additional food and the considerations that might govern its use. The basic assumption underlying the status quo assessment is that additional food would be needed to prevent food supplies, and hence consumption, from falling below recent levels. Meeting status quo food needs would in principle stabilize per capita use by filling shortfalls in domestic production and import capacity. The nutrition-based assessment addresses the continuing problem of undernutrition in many of the developing countries. The assumption is that additional food would be needed to close the gap between food availabilities and an internationally accepted minimum nutritional standard. The nutrition-based estimates thus provide a measure of the nutritional gap, net of recipient countries' capacity to import food commercially.

This report employs a calculation of base period per capita food use that stabilizes annual status quo food needs assessments. The calculation is the same as that employed in the last (May 1986) update of the World Food Needs and Availabilities, but differs from that in the annual report issued in July 1985. Status quo food use is the mean of 4 recent years of record. Base period food use is calculated as the mean of the most recent 4 years that deviate less than one standard deviation from the mean of the most recent 8 years of record. The method is explained in the Methodological Notes section of this report. Appendix A to the May report presents the results of an assessment employing both the present and the earlier method of calculating base period per capita food use. The revised calculation of per capita food use does not affect assessed nutrition-based food needs for consumption. Because of differences in the variability and in the trend of national per capita food consumption, the current assessment of status quo additional food needs for countries and for regions may be higher or lower than earlier assessments.

The most current available weather, crop production, and financial data were employed in making 1986/87 estimates. Food availability for 1987/88 is estimated from historical production. With new or changed crop information, production and additional food needs estimates change, sometimes sharply. The quarterly reports to be issued through the coming year will provide users with assessments based on current weather and crop information. Current updates of assessments on individual countries are available from the Economic Research Service.

Estimates of commercial import capacity assume the continuance of recent experience in debt payment, and thus the availability of foreign exchange for commercial food purchases. Significant changes in debt payment performance would alter food import capacity and additional food needs.

Neither the status quo nor the nutrition-based food needs measures deals specifically with the ability of a country's infrastructure to absorb food aid without overloading port and transportation capacity, and storage and distribution systems. The maximum absorbable food imports assessment frequently limits the quantity of nutrition-based needs that can physically be provided. The "gap" between maximum absorbable and nutrition-based food needs is one measure of the seriousness of a country's food problem. In a very real sense, the magnitude of the task of achieving the financial and physical capacity to import food, or increasing domestic food production consistent with national food demand, is captured by this measure.

The import requirements and additional food need estimates in World Food Needs and Availabilities reports are based on national agricultural and economic data. These estimates assist financial and logistics planning by both donor and food aid recipient countries. It should be apparent, however, that additional food need levels are only a part of the calculus, and that delivering imported food to the communities that are deprived by national food production shortfalls or civil disturbances is a major undertaking. Factors bearing on success include local transportation and communications infrastructure, the financial status of both local and national public service agencies, and the availability of international financial support. The quarterly assessments of additional food needs are intended to add to the information available so that food and complementary financial and technical assistance can be made available in a timely fashion.

Ray W. Nightingale
Food Needs Analysis Coordinator

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Ray Nightingale directed the overall planning and preparation of the report. Regional coordination within the Economic Research Service was performed by: Margaret Missiaen and Peter Riley (Africa and the Middle East), Rip Landes (Asia), and Chris Bolling (Latin America). Suzanne Marks and David Stallings revised and installed software to incorporate updated data series. Wanda Wade and Fannye Lockley updated food trade and concessional imports data. Ron Dowd assisted in the collection of historic production data. Nancy McKaig, Leslie Ross, and Richard Shelton provided support in running the country food needs model. Financial analysis was provided by Art Morey, assisted by Ricardo Krajewski and Don Sillers.

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Food Aid Analysis Working Group reviewers for the Agency for International Development included David Rhoad, Food and Voluntary Assistance, Henry Merrill, Africa Bureau, David Alverson and Richard Suttor, Asia-Near East Bureau, and Howard Steele, Latin American Bureau. Scott Danaher reviewed the report for the Department of State.

Rip Landes, Margaret Missiaen, Peter Riley and David Stallings assisted in final review of the report. Final editing was done by Diane Decker and the cover was designed by Carolyn Riley, both with the USDA Economics Information Division.

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Reviewed and approved by the World Agricultural Outlook Board.

SUMMARY

The detailed country tables and narratives in this report include information on the quantities and dollar values of assessed additional food needs, including the need for cereals, pulses, vegetable oils, and dairy products. This summary covers just additional need for cereal, the principal commodity employed in international food aid. Food needs assessments for 1986/87 and 1987/88 are based on information available in late June, 1986. The current assessment of additional food needs for consumption is sharply down from the final assessed needs for 1985/86. Total status quo cereal needs are down by 1.8 million tons and nutrition-based needs by 6 million tons. Taking into consideration stock adjustments, status quo needs decline by nearly 1 million tons and nutrition-based needs by 5.7 million.

Assessed cereal needs in 1986/87

The total assessed 1986/87 additional status quo cereal needs for consumption in the 69 developing countries is 7 million tons. The status quo cereal need for Sub-Saharan Africa is 2.5 million tons. East Africa has the highest assessed need, at 1.3 million tons, followed by Southern Africa with 574,000 tons. While Sudan has no 1986/87 needs, Ethiopia needs 906,000 tons. Status quo food needs in Central and West Africa are 124,000 and 549,000 tons, respectively. With the addition of 2.5 million tons of additional cereal needs in North Africa, total needs in Africa are 5 million tons.

In Asia, 1986/87 status quo needs are 1.26 million tons. The greatest assessed needs in South Asia are in Bangladesh and Afghanistan with 554,000 and 423,000 tons, respectively. A greatly improved agricultural and financial outlook in the Philippines continues to reduced status quo additional cereal needs in South East Asia.

The 1986/87 status quo additional food needs in Latin America are 330,000 tons. The greatest assessed needs are in Central America (198,000 tons) where El Salvador requires 122,000 tons.

Nutrition-based additional food needs in 1986/87 are 14 million tons, double the status quo needs. Cereal required in Sub-Saharan Africa to meet nutrition-based needs for 1986/87 is assessed at 8.5 million tons. As with the status quo assessment, the need is primarily in East Africa, where Ethiopia requires 2.8 million tons and Kenya and Somalia also have large food needs. Nutrition-based additional cereal needs in West and Southern Africa are 1.6 and 1.8 million tons, respectively.

Nutrition-based needs in South Asia are 4.4 million tons. Bangladesh and Nepal require 3.5 million and 649,000 tons, respectively. India has no nutrition-based need in 1986/87. In Southeast Asia the greatest nutrition-based need is 391,000 tons for stock adjustments in the Philippines. Cambodia has nutrition-based needs of 258,000 tons.

Nutrition-based 1986/87 additional food needs in Latin America are 875,000 tons. Countries with the greatest need are El Salvador and Guatemala in Central America, the Dominican Republic and Haiti in the Caribbean, and Bolivia in South America.

In many regions, nutrition-based needs are constrained by absorptive capacity. In 1986/87 this is particularly significant in East and Southern Africa, and in South Asia. Individual countries in which this constraint is of major importance are Ethiopia, Mozambique, and Bangladesh.

Additional cereal needs in 1986/87 as compared to 1985/86

The greatest decline from 1985/86 in status quo and nutrition-based needs is in Asia. Gains in agricultural production in Asia have been accompanied by continued financial weakness, which may shave the 692,000-ton decrease in assessed status quo needs. A 5.5-million-ton decline in nutrition-based needs in South Asia is principally in India and Pakistan.

Additional cereal needs are down overall in Sub-Saharan Africa. The increase in West African status quo needs has been held to 85,000 tons by good production prospects, improved stocks, and increased commercial import capacity. Nutrition-based needs in Sub-Saharan Africa increased 420,000 tons and by 630,000 tons with stock adjustments. A return to more historical production levels in East Africa reduces status quo needs by 344,000 tons, but the threat of crop loss to locusts could increase cereal needs. East Africa nutrition-based needs have also increased. In Southern Africa, civil disturbances are limiting agricultural growth in some countries. Status quo needs are down overall by 204,000 tons to 574,000 tons, but local surpluses could serve to reduce these further.

Diminished oil revenues offset improved agricultural production to sustain North Africa status quo needs. Stock adjustments bring status quo needs to 646,000 tons, while nutrition-based needs remain zero.

Status quo needs are down by 320,000 tons and nutrition-based needs by 360,000 tons in the Middle East.

Status quo needs are down by 200,000 tons and nutrition needs by 110,000 tons in the Caribbean, while nutrition-based needs are up 70,000 tons in South America.

Additional cereal needs in 1987/88

The initial assessment of additional food needs for 1987/88 puts total status quo cereal needs at 6.6 million tons, down 400,000 tons from 1986/87. Nutrition-based needs are assessed down 230,000. Taking into consideration stock adjustments, 1987/88 nutrition-based needs are down nearly 1 million tons and status quo needs are down 1.5 million tons.

Additional cereal needs to support consumption, stocks adjustments, and maximum absorbable cereal needs

Region	Status quo		Nutrition-based		Maximum 1/
	Consumption	Consumption + stocks	Consumption	Consumption + stocks	
	--------Thousand tons (cereal equivalent) 2/--------				
1984/85					
Total	11,745	13,450	25,767	27,472	3/
1985/86 4/					
Total	8,811	9,503	20,253	21,036	15,014
1986/87					
Total Africa	4,992	6,030	8,496	8,922	9,383
North Africa	2,439	3,198	0	0	3,198
Sub-Saharan Africa	2,553	2,832	8,496	8,922	6,185
West Africa	549	585	1,560	1,597	1,169
Central Africa	124	136	279	291	291
East Africa	1,306	1,537	4,886	5,118	3,560
Southern Africa	574	574	1,771	1,916	1,165
Middle East	452	540	283	371	371
Total Asia	1,260	1,465	4,623	4,929	2,347
South Asia	1,246	1,451	4,365	4,570	1,988
Southeast Asia	14	14	258	359	359
Total Latin America	330	447	875	1,068	931
Caribbean	132	208	254	330	314
Central America	198	239	392	443	427
South America	0	0	229	295	190
Total	7,034	8,482	14,277	15,290	13,032
1987/88					
Total	6,622	6,976	14,048	14,340	11,266.

1/ Imports consistent with maximum recent levels of consumption and food stocks. 2/ Major cereals, and the cereal equivalent of shortfalls in roots and tubers. 3/ Maximum absorbable needs not computed in 1984/85. 4/ Final 1985/86 assessment, May, 1986 FNA report.

WORLD FOOD SITUATION AND OUTLOOK

Global food supplies reached record levels in 1985/86, as both production and carryin stocks increased. Production rose in the developed and developing countries, while output declined marginally in the centrally planned region. Particularly strong gains were registered in Africa, parts of which were hit by severe drought in 1983 and 1984. The large world harvests of the last 2 years have outpaced growth in consumption, and world stocks of grains and oilseeds are now at record levels. World food production in 1986/87 may show little, if any, growth, because a smaller grain crop is projected and oilseed output will rise only slightly. But supply is expected to be up again as record carryin stocks offset the drop in 1986/87 production.

World cereal production increased by slightly over 1 percent in 1985/86, following an increase of almost 11 percent the previous year. Coarse grains accounted for all of the 1985/86 increase, with output rising by more than 4 percent; production rose by 18 percent in the previous year. The largest gain occurred in the United States, where record yields and a 4-percent gain in area resulted in a 15-percent rise in production. Coarse grain production outside the United States declined marginally, led by a 12-percent decline in China and a 4-percent lower outturn in Europe. However, the world 1985/86 wheat and rice crops dropped. Rice output declined by 1 percent, mainly because of a smaller crop in China. Output was up in many developing countries, led by a 2.5-million-ton gain in India. World wheat production was down more than 2.5 percent, but was still the second largest crop on record. Argentina's crop, which varies greatly from year to year because of weather, dropped by 35 percent from the previous year's good crop. The EC-12, Eastern Europe, and Australia registered smaller crops, while production recovered by 10 million tons in the USSR.

World edible oil production set another record in 1985/86, rising by more than 6 percent. While the 18-percent increase in plam oil was the largest year-to-year gain, all the major oilseeds except olive and cottonseed oil showed an increase. Cottonseed production dropped largely because China's cotton crop fell by one-third. The large jump in palm oil production is having a major impact on world markets. Palm oil prices at Rotterdam averaged $258 per ton in June 1986, down from $348 a year earlier. World prices of other oils also have declined sharply.

Per capita food production increased slightly in both the developed and developing countries, but was down in the USSR and Eastern Europe. In the developed countries, large gains in the United States and Canada offset lower production in Western Europe. While the gain for the developing countries as a whole was small, Africa rebounded strongly. This was the first time in a decade that Africa's per capita output rose for 2 consecutive years, but per capita production has still not recovered to the level of the early eighties.

1/ Production and trade data presented in this section are USDA estimates as of July 11, 1986.

World trade in grains dropped in 1985/86, while trade in edible oils continued its long upward trend. Although record grain supplies and intense exporter competition pushed grain prices lower in 1985/86, trade in both wheat and coarse grains dropped. The falloff was mainly due to larger supplies in importing countries, particularly the USSR. But macroeconomic conditions---particularly the large debt burden and foreign exchange shortages---continued to depress imports of some countries. The United States bore the brunt of the lower trade levels, as U.S. exports of wheat and corn are expected to decline by more than 31 million tons. Soybean oil trade continued to decline as the other oils increased their share of world oil trade. Palm oil showed the strongest year-to-year gain and is expected to account for almost 31 percent of world oil trade, compared with 26 percent in 1982/83.

The outlook for 1986/87 food supply availabilities continues favorable. Grain production will dip slightly, but record carryin stocks will mean record supplies in 1986/87. World grain production is projected to be down by around 1 percent, but foreign production is expected to be up more than 1 percent. The largest increases are likely to come in China as crops recover from a reduced 1985 outturn. The largest drop will take place in the United States, where grain output is projected to be off 11 percent under the combined impact of more normal yields, depressed prices, and the new farm legislation.

The 1986/87 world oilseed crop is likely to be up slightly, although U.S. production is likely to drop. Edible oil output will increase again, with large gains in palm, sunflowerseed oil, and peanut oil expected.

World market prices for all commodities are projected to be lower in 1986/87 as large supplies combine with the sharply lower U.S. loan prices for many commodities. World trade in cereals is expected to show only modest growth during 1986/87 despite lower prices and some improvement in world economic growth, low interest rates and, for oil importers, the favorable impact of lower oil prices. Production gains in importing countries, together with continued financial difficulties for some countries, will continue to constrain expansion in import demand.

Cereals Situation and Outlook

Global cereal production in 1985/86, at 1.66 billion tons, was 1 percent above the previous year, led by gains in coarse grains. While an increase of 1 percent may seem small, it is the equivalent of more than 10 percent of world grain trade. With 1985/86 beginning stocks the second largest on record, supplies are up about 68 million tons, exceeding 1.9 billion tons for the first time. World grain trade, at 181 million tons, is expected to be down almost 39 million tons from 1984/85 and the lowest level since 1978/79. Consumption is expected to fall about 1 percent, but still exceed 1983/84 by 39 million tons. Higher production will combine with lower consumption to result in a further rise in world cereal stocks of almost 80 million tons.

In 1986/87, world cereal production is forecast to decline nearly 20 million tons, reversing the trend of the 2 previous years. However, with record beginning stocks, world grain supplies will be up almost 60 million tons (3 percent). Utilization of grain is forecast to expand by 1.5 to 3 percent and exceed 1.6 billion tons for the first time. A decade earlier, consumption was only slightly more than 1.3 billion tons. Continued plentiful supplies within the major coarse grain exporting countries, coupled with sharply reduced export prices, will likely lead to a 13-million-ton boost in global trade in 1986/87. World trade, forecast at about 194 million tons, will remain 26 million tons below the 1984/85 record. In spite of reduced 1986/87 production and increased consumption, global production is forecast to be more than 30 million tons above consumption. Thus, ending stocks will continue to expand and by the end of 1986/87 represent nearly 22 percent of utilization. Only 3 years earlier ending stocks equaled only 12 percent of world use.

Year-to-year production changes differed dramatically in 1985/86 among commodities and countries. The most dramatic change was in coarse grains, where global outturn increased by 34 million tons, setting a record. U.S. production rose 37 million tons but foreign production declined marginally. However, foreign production also fluctuated substantially. For example, Soviet production was up 8 million tons and Canada's was almost 3 million above 1984/85's drought-reduced crop. China's and Europe's production, on the other hand, declined about 12 and 7 million tons, respectively, from the previous year's record. Significant declines were also registered for Mexico, Brazil, and India.

In 1986/87, global coarse grain production is forecast to fall by almost 25 million tons, to 818 million. Even so, this crop will be the second largest on record. The United States will account for most of the change, as reduced plantings and yields closer to trend are expected to reduce outturn by 29 million tons. Production outside the United States is expected to be up 1 percent from 1985/86. Among the centrally planned countries, China is expected to register production gains in 1986/87, but the Soviet crop may decline. Production of coarse grains in the developing countries is expected to be up 2 percent, led by gains in Brazil, Indonesia, and several North Africa/Middle East countries. Despite the larger production, many developing countries are expected to take advantage of the sharply lower prices to maintain their imports at 1985/86 levels or even increase their coarse grain imports.

Global wheat production in 1985/86, at 502 million tons, declined by 13 million ton from the 1984/85 record. U.S. production fell about 4 million tons, as both area and yields declined. Production outside the United States dropped 9 million tons, due entirely to smaller output by the major exporters. Production in Argentina, the EC-12, and Australia fell by a combined 19 million tons, with over half of the losses in the EC-12.

Although the 10-million-ton gain in USSR production was the largest, there were significant gains in Africa, Pakistan, Iran, and several other developing countries. Led by sharply larger area and record yields, Brazil's 1985/86 wheat crop was more than double a year earlier. Global consumption declined an estimated 1 percent to 494 million tons. However, the year-to-year consumption decline was concentrated in China and the United States. The developing countries' wheat use continued to rise, although the gain was less then the average of the early 1980's. Global trade dropped more than 21 million tons (20 percent) from the 1984-85 record. While much of the decline was due to a 12-million-ton reduction in USSR imports, Brazil's imports declined almost 3 million tons and China's were down 1.1 million.

In 1986/87, global wheat production, at 504 million tons, is expected to be up marginally from 1985/86. While world production will remain 2 percent below the 1984/85 record, it will be due to a decline in U.S. production of more than 7 million tons. Foreign production will advance almost 9 million tons and establish a new record. For the major exporters, more normal yields are expected to result in a 6-million-ton increase in the combined production of Argentina, the EC-12, and Canada. While China's and Eastern Europe's wheat crops may rebound slightly from the reduced 1985/86 outturn, the USSR may see a 7-million-ton drop. On the other hand, many of the developing countries are expecting significant gains, led by several North African countries, India, and Pakistan. World wheat consumption is expected to be up more than 9 million tons and exceed 1984/85's 500-million-ton record by 3 million. Gains in the developing countries will be widespread, fueled by increased domestic production and imports. World trade is expected to be up 5 to 6 million tons from 1985/86 but remain 15 million below the 1984/85 record. However, if USSR imports are excluded, world trade will be only 5 million tons below 1984/85. Since most of the major exporters will have entered 1986/87 with already burdensome stocks and production is expected to be up in many importing countries, competition among exporters will remain intense. This, combined with a 27 percent drop in the U.S. loan rate for wheat, will result in more of a buyer's market than in 1985/86. Thus, increased wheat imports are expected to be widespread throughout the developing countries.

Global rice production in 1985/86 declined by about 1 percent to about 316 million metric tons (milled basis), with foreign producers absorbing all of the losses. Large beginning stocks, however, resulted in world supplies being up 2.5 million tons. Among the major rice importers, production rose by almost 1 million tons, led by gains in Indonesia. Production among the major foreign rice exporters rose 3 percent, as a 500,000-ton increase in Thailand more than offset a reduced crop in Pakistan. Significant increases in use were registered in many developing countries, such as India, Bangladesh, and Indonesia. However, there was a 7-million-ton decline in China. Because of a concentrated effort by many major exporters to reduce burdensome stocks and a sharp reduction in U.S. export prices when the marketing loan provision of the 1985 farm bill went into effect in April, world trade in calendar 1986 is expected to be only 800,000 tons above the 11.5 million tons exported in 1985. However, world stocks will continue to rise and at the beginning of 1986/87 are expected to be second only to the 27.9 million at the end of 1978/79.

Rice production in 1986/87 is forecast at a record 321 million tons (milled basis), up more than 4 million from 1985/86. Since little change is expected in U.S. production, foreign production is expected to rise by more than 4 million tons. Most of the year-to-year gain will come from a rebound in China's crop. World rice utilization is likely to increase 7 million tons in 1986/87, more than offsetting production gains. As a result, rice ending stocks are likely to continue to shrink slightly.

Oilseeds Situation and Outlook

The 1985/86 crop year is characterized by a record supply of vegetable oils led by an 18-percent increase in global palm oil. Oil output should rise 7 percent. World consumption will rise roughly 5 percent this year but the distribution of this increase is skewed. Palm oil use could rise 14 percent, while soybean oil use will change very little. Stocks are likely to reach a record level, 12 percent above the previous year. U.S. soybean oil stocks will increase by a startling 91 percent.

Foreign vegetable oil output will far exceed demand in 1985/86. Production is expected to increase 6 percent while consumption rises only 5 percent. In the developing regions where vegetable oil is a food staple, a 3-percent supply growth is anticipated. Consumption is expected to increase by less than 1 percent. Consumption in the developing world is at a record level and has roughly doubled in the past decade. The centrally planned region will generate a surplus of oils because of large crops in Poland and China. In contrast, vegetable oil use in the developed countries may rise slightly faster than output gains.

Global stocks at the end of 1985/86 are expected to be about 10 percent of total use, led by mounting outturns of palm oil. In both importing and exporting nations, large stock buildups are putting severe downward pressure on prices. Malaysia and other producers prefer to market exports aggressively even at low prices to avoid stocking palm oil.

Therefore, prices in 1985/86 have declined by about half, with palm oil prices averaging $297 per metric ton during October-June 1985/86. A large portion of the developing world relies on vegetable oils to generate export earnings, which will be depressed because of low prices.

For 1986/87, world production is expected to be up 3 percent, led by growth in palm, sunflowerseed oil, and peanut oil. Soybean oil is expected to expand 2 to 3 percent, with a 6 percent gain in Latin America. Consumption of vegetable oils may only grow around 2 percent, resulting in a continued buildup in stocks. U.S. stocks could show another 20 to 25 percent gain. Gains in production and only modest consumption growth will continue to pressure world prices.

The larger 1986/87 oilseed production will come largely from high-oil-content oilseeds. Large oilseed production will provide additional large vegetable oil supplies. Output by several major producers, such as Brazil and India, is expected to recover to more normal yields. U.S. soybean output could decline following last years' record yields. The outlook for palm oil is for increased production but the rate of increase should slow. Stocks of palm oil, however, are more than double the volume a year ago.

India's oilseed production will increase sharply, offsetting the effects of this year's stock drawdown. India is anticipated to import only slightly more than in 1985/86. Pakistan is expected to have reduced oil production because of lower cottonseed outturn. A moderate gain in oil import needs is expected. In both of these markets, palm oil competes directly with soybean oil because of Malaysia's proximity to these Asian markets. Besides the locational advantage of palm oil to India, India's Public Distribution System markets large quantities of palm oil but virtually no soybean oil.

Malaysia will have difficulty storing its continually growing palm oil output and will offer palm oil at a significant discount to soybean oil. In addition, Indonesia's large gains in output and exports weakened the oil sector. Large coconut oil exports by the Philippines are also anticipated. The onslaught of these exports puts U.S. soybean exports in jeopardy. The U.S. export potential depends largely on credit assistance programs. But for some countries, the credit is not attractive enough compared with the current low prices for major vegetable oils.

Total cereals: World production, consumption, and net imports 1/

Region/country	1983/84 Produc-tion	1983/84 Consump-tion	1983/84 Net imports	1984/85 Produc-tion	1984/85 Consump-tion	1984/85 Net imports	1985/86 Produc-tion	1985/86 Consump-tion	1985/86 Net imports	1986/87 2/ Produc-tion	1986/87 2/ Consump-tion	1986/87 2/ Net imports
	Million metric tons											
Developed countries 4/	459	420	-120	600	439	-127	619	443	-95	580	441	-109
United States	206	182	-97	313	197	-96	345	201	-62	308	201	-78
Canada	47	25	-28	43	24	-21	49	25	-22	50	24	-24
EC-12	139	143	-3	174	147	-14	160	148	-13	156	145	-11
Other Western Europe	16	16	---	18	16	-2	17	16	-3	17	16	-1
South Africa	7	9	2	11	9	---	10	10	-2	12	10	-2
Japan	11	37	26	12	38	26	12	37	26	11	38	27
Oceania	33	7	-20	29	8	-21	26	7	-21	24	7	-20
Centrally planned countries4/	574	614	43	585	632	55	573	607	32	581	618	35
Eastern Europe	103	106	3	115	114	---	106	113	5	109	109	1
USSR	180	208	32	161	209	54	179	206	27	169	204	32
China	291	300	8	309	310	1	288	288	---	303	304	2
Developing countries 4/	451	511	68	459	521	69	470	535	64	483	551	70
Mexico/Central America	21	29	9	23	30	7	23	30	6	22	31	8
Venezuela	1	4	2	1	4	3	2	4	2	2	4	3
Brazil	30	34	4	30	35	7	31	37	6	34	37	4
Argentina	30	13	-18	32	12	-20	27	11	-16	28	12	-16
Other South America	9	12	4	10	13	3	9	12	3	10	14	3
North Africa/Middle East	52	90	38	50	93	42	58	98	40	60	102	42
Other Africa	37	48	9	40	51	10	49	55	8	49	58	9
South Asia	180	177	6	177	178	4	178	180	3	183	185	2
Southeast Asia	77	77	---	80	78	1	82	79	-2	84	821	-2
East Asia	15	27	12	15	27	13	15	28	13	15	29	13
Rest of world	---	1	---	---	---	---	---	---	---	---	---	---
World total 4/	1,463	1,545	---	1,643	1,591	---	1,662	1,584	---	1,643	1,610	---

1/ Regional totals include some high-income developing countries not treated in this report. 2/ Forecast. 3/ A negative figure indicates net exports. 4/ Totals may not add due to rounding.
Source: USDA/ERS, as of July, 1986.

World supply and use of vegetable oils 1/

	1982/83	1983/84	1984/85	1985/86	1986/87
	Million metric tons				
Beg. Stock	3.63	3.88	3.81	4.14	4.51
Production	41.59	40.31	44.28	46.99	48.38
Imports	12.22	12.44	13.88	14.44	14.99
Consumption	40.62	40.34	43.53	45.63	47.64
Exports	12.94	12.39	14.20	15.30	15.64
End. Stock	3.88	3.81	4.25	4.76	4.86

1/ Edible vegetable oils including soybean, palm, sunflowerseed, rapeseed, cottonseed, peanut, olive, coconut, and palm kernel oils and excluding fish and linseed oils. Excludes palm oil transshipments through Singapore.

Indices of world and regional food production

Region/country	Total food production							Per capita food production						
	1979	1980	1981	1982	1983	1984	1985	1979	1980	1981	1982	1983	1984	1985
	(1976-78 = 100)							(1976-78 = 100)						
Developed countries	107	105	108	110	103	113	114	106	103	105	106	99	107	108
United States	110	103	113	114	94	110	116	107	99	108	108	89	102	107
Canada	97	103	113	119	114	110	118	95	100	108	113	106	102	109
Western Europe	108	112	110	113	111	119	116	107	111	108	111	109	117	113
Japan	101	91	92	94	94	100	102	100	88	89	91	90	95	96
Oceania	104	96	105	95	116	112	113	102	93	100	89	108	103	103
South Africa	101	109	121	107	93	102	109	97	101	110	95	80	86	90
Centrally Planned countries	104	101	102	109	114	118	117	102	98	98	103	106	110	108
USSR	97	94	91	97	102	102	102	96	92	88	93	97	96	95
Eastern Europe	103	97	102	105	104	112	108	101	95	99	102	101	108	104
China	119	119	124	136	146	156	156	116	114	118	127	136	143	143
Developing countries	104	107	112	114	116	120	125	99	100	102	101	101	102	103
East Asia 1/	106	109	117	119	125	131	136	102	102	107	107	110	112	114
South Asia	99	102	111	108	122	123	124	95	96	101	97	107	105	104
West Asia 2/	104	104	105	114	114	117	122	98	96	94	99	97	96	98
Africa	105	108	110	113	108	112	121	99	99	98	98	91	92	96
Latin America 3/	106	112	115	117	114	121	125	101	104	104	104	99	103	103
World	105	105	107	111	111	117	118	102	99	100	102	100	104	104

Note: Production reported on a calendar year basis.

1/ Includes Southeast Asia regions shown in Total Cereals table. 2/ Includes Middle East regions shown in Total Cereals table. 3/ Includes Central America, Venezuela, Brazil, Argentina, and other South American regions shown in Total Cereals table.

Selected world cereal and oilseed prices

Product	Marketing year	1981/82	1982/83	1983/84	1984/85	1985/86 Forecast	1986/87 Forecast
				Dollars per metric ton			
Wheat, #2, HRW, f.o.b. U.S. Gulf ports	June/May	172	159	153	150	132	100-110
Rice, broken, f.o.b. Bangkok Thailand	Aug/July	369	270	268	236	210	190-210
Corn, f.o.b. U.S. Gulf ports	September/ August	114	121	145	119	105	85-95
Soybean oil, Decatur	October/ September	417	455	670	647	410	305-420

Cereal carryover stocks

	1969/70-1971/72	1983/84	1984/85	1985/86 Preliminary	1986/87 Forecast
World					
Million tons	185.0	190.8	241.9	320.2	348.1
Percent of consumption	16.3	12.0	15.2	20.2	21.6
U.S.					
Million tons	67.5	77.4	98.8	180.9	209.8

SOURCE: USDA, as of July, 1986

Food Aid Availabilities and Outlook

The Food and Agriculture Organization (FAO) estimates that world cereal aid shipments reached almost 11 million tons in the July–June 1985/86 trade year, down 13 percent from 1984/85, but still surpassing the 1974 World Food Conference target of 10 million tons. The United States was expected to provide two–thirds, followed by the European Community (EC) with about 15 percent, Canada with less than 10 percent, Australia, 4 percent, and Japan, 3 percent. Given budgetary pressures, world food aid would be expected to decrease in 1986/87, but as commodity prices are expected to decrease also, supplies may remain close to current levels.

World cereal aid in 1984/85 rose more than 25 percent from 1983/84 to 12.5 million tons, the highest since at least 1970/71. The United States provided 60 percent, compared with 20 percent from the EC, 8 percent from Canada, 4 percent from Australia, and 3 percent from Japan. Among major donors, relative increases from 1983/84 were greatest in U.S. food aid shipments, which rose fully one–third, and shipments by the EC, which rose a little less than one–third. Canadian shipments rose by about 5 percent, while Australian aid increased only by about 1 percent. Japanese shipments fell by slightly more than one–quarter. The largest increases in percentage terms were from the smaller donors. India, which provided no food aid in 1983/84, provided 100,000 tons. China almost tripled its cereal aid to 92,000 tons, while Norway and Saudi Arabia more than doubled their aid to 43,000 and 71,000 tons respectively.

Most donors were expected to decrease their food aid in 1985/86. The largest relative declines in 1985/86 were expected from those same small donors that showed such dramatic increases the year before. Among major donors, aid from the EC was expected of fall sharpest, down more than 35 percent. Australian shipments were expected to fall by nearly 15 percent, those of Japan by 10 percent, and the United States and Canada by less than 5 percent.

In 1984/85, Africa received about 60 percent of world cereal aid, with Sub–Saharan countries receiving almost 40 percent. Slightly less than 30 percent was shipped to Asia and about 10 percent to Latin America. A small amount was also shipped to Poland.

As of mid–June 1986, donors had pledged about 3.7 million tons of cereal to Sub–Saharan countries for 1985/86 or 1986. Chief recipients are Ethiopia with about 20 percent, Sudan with slightly less, Mozambique with less than 15 percent, and Kenya with 5 percent. With the lag experienced in making these exceptionally large deliveries, food aid will likely contribute to opening stocks in some countries in 1986/87.

Developed countries assist Third World nations to import needed goods and services and to promote development in a variety of ways. Total official development assistance (ODA) in 1984 was $28.7 billion, the highest in real and nominal terms since at least 1975. Food aid from the OECD countries rose 15 percent to $2.9 billion, the highest in nominal terms since at least 1975, and in real terms, the highest since 1975. Food aid as a share of total ODA increased to slightly more than 10 percent in 1984, the highest since 1981. The share of grant food aid (as opposed to concessional sales) topped 75 percent for the first time in at least the last 10 years.

Multilateral food aid from the OECD countries increased 6 percent to $642 million in 1984. Because total food aid increased more than that of multilateral food aid, the multilateral share fell slightly from approximately 24 percent to about 22 percent. The World Food Program (WFP) is the chief multilateral channel for distributing food aid. At the end of March, pledges to the regular resources of the WFP for the 1985-86 biennium totalled 77 percent of the $1.35-billion target. Against the $1.4-billion target for the 1987-88 biennium, total pledges were less than $310 million, or 22 percent. Several large donors have not yet announced their pledges.

The 500,000-ton minimum target of the International Emergency Food Reserve (IEFR), administered by the WFP, was surpassed by more than 250,000 tons in 1985, and as of mid-May, pledges to the 1986 IEFR totaled almost 490,000.

UNITED STATES

In the October-September 1984/1985 fiscal year (FY), U.S. food aid reached nearly 7.2 million tons, the highest since FY 1973. Preliminary data show that Public Law (P.L.) 480 shipments totaled more than 6.9 million tons worth about $1.3 billion. Title I/III concessional sales comprised almost 4 million tons. The Title II (donation) program volume reached nearly 3 million tons, the highest in the history of the program. About 40 percent of the donations were shipped under government-to-government agreements, about 30 percent through voluntary relief organizations, and nearly the same share through the WFP. Under authority of Section 416 of the Agricultural Act of 1949, as amended, almost 270,000 tons of CCC dairy products were donated in FY 1985.

As the African situation has improved, programming for P.L. 480 has fallen. The program level for FY 1986 is slightly more than $1.7 billion, about 20 percent less than in FY 1985. However, with lower commodity prices, the programmed volume level has fallen less than 15 percent. The Title I/III program level is reduced from about $1.1 billion to approximately $986 million and the Title II program level is lowered from less than $1.1 billion to about $754 million. Of total P.L. 480 assistance, Africa is programmed to receive roughly half of the commodity value, followed by Asia with about 30 percent, Latin America with about 20 percent, and a small amount to Poland.

The United States has consistently exceeded its pledge to the Food Aid Convention (FAC) whose members, in aggregate, pledge to provide 7.6 million tons of cereal aid annually. In the 1985/86 trade year, the United States exceeded its 4.47-million-ton pledge by an amount estimated at more than 2.5 million tons.

The Food Security Act of 1985 made several changes in U.S. food aid programs. One change was to channel more P.L. 480 Title I resources to the recipient country's private sector. The volume and types of commodities donated under authority of Section 416 were expanded. A new Food For Progress Program is targeted to those countries that commit themselves to market-oriented agricultural policy reform.

For FY 1987, the Administration has requested a P.L. 480 program level of approximately $1.5 billion, about 10 percent less than in FY 1986. This is expected to yield a drop in volume of less than 5 percent given lower expected commodity prices. As proposed in the budget, the Title I/III program level will fall to about $944 million, while that of Title II will decline to $600 million. However, actual program levels must await the outcome of the budget process.

AUSTRALIA

As estimated by the FAO, total cereal shipments by Australia in 1984/85 were 466,000 tons. In the July-June 1984/85 Australian fiscal year, the food aid budget rose 15 percent to A$120 million (about US$93 million). Wheat comprised slightly less than 60 percent of the budget, followed by rice with less than 20 percent. Coarse grains were the largest commodity among the remainder. Major recipients of wheat and flour aid were China, Ethiopia, and Bangladesh. Rice was shipped mainly to Vietnam, Indonesia, and Mozambique. Tanzania and the Sudan were the only coarse grain recipients.

In the 1985/86 fiscal year, the food aid budget was maintained at roughly the same level (though about US$83 million due to changes in the exchange rate). Wheat accounted for about 40 percent of the value of the budget, while rice accounted for about 15 percent. The coarse grains share of the budget increased to almost 15 percent. The powdered milk budget declined while that of dried fruit, pulses, and butteroil increased. Pledges of cereal aid to Sub-Saharan countries as of mid-June totaled 96,300 tons, or about 3 percent of total pledges. Chief recipients are Ethiopia, Mozambique, Tanzania, and Sudan. More than 35,000 tons are to be provided through triangular transactions in which Australia will provide cereal to one country (Zimbabwe), which in turn will provide an equivalent amount of its own cereals to the ultimate recipients (Botswana, Ethiopia, Somalia, Mozambique, and Zambia).

Austr[redacted]ds its goal of providing half its food aid through the WFP as about 45 percent of the 1984/85 budget was allocated through the Program. In 1985/86, slightly more than half of the food aid budget was channeled through the WFP, although more than 60 percent of cereals were still provided bilaterally. The chief cause for the WFP's increased share was a 50-percent jump in cash contributions to approximately A$22 million (about US$15 million).

CANADA

In 1984/85, Canada shipped an estimated 943,000 tons of cereals, up 15 percent over 1983/84 levels. The Canadian food aid budget for the April-March 1984/1985 fiscal year approached C$385 million (about US$292 million), up 18 percent from the previous fiscal year. Chief commodities were wheat, which comprised about 60 percent of the commodity budget, followed by pulses and fish, with slightly more than 10 percent, and edible oilseeds, oils, and fats with 10 percent. Chief recipients of wheat and flour shipments were Bangladesh, China, and Ethiopia, accounting for more than 60 percent of all such shipments. Mali received almost all of coarse grain shipments while Gambia received all of the rice.

In the 1985/86 fiscal year, the food aid budget dropped almost 10 percent to about C$347 million (about US$252 million). The budget allocations for wheat, rice, and pulses and fish decreased, while that of maize, skim milk powder, edible oilseeds, oils, and fats increased. As of mid-June, Canada pledged 166,200 tons of wheat and 18,000 tons of coarse grains to Sub-Saharan countries. Top recipients are Ethiopia, and Sudan. Of this amount, 5,300 tons are involved in triangular transactions, and 4,500 tons in a local purchase of cereals in Niger for distribution there.

In fiscal 1986/87, the food aid budget has been increased about 8 percent to C$375.3 million (about US$267 million). Chief allocations are to Asia (most to Bangladesh) and English-speaking Africa (especially Ethiopia). Slightly less than one-half of the budget is allocated for multilateral initiatives, about the same share as in 1985/86.

EUROPEAN COMMUNITY

Cereal shipments from the EC for the 1984/85 trade year peaked at about 2.5 million tons. The 1984/85 EC regular food aid program consisted chiefly of almost 1.16 million tons of cereal, 108,600 tons of skim milk powder (SMP), and about 30,000 tons of butteroil. In addition, under the December 1984 Dublin Plan, the EC pledged to provide 1.2 million tons of cereal to drought-stricken African countries. As of March 31, 1986, the latest date for which information is available, about 80 percent of the cereals of the regular 1984/85 program had been delivered or were in the course of delivery, compared with about 70 percent for SMP, and approximately 60 percent of the butteroil.

As of mid-June, the EC had pledged almost 783,000 tons of cereals to Sub-Saharan countries. Of that, about 126,000 tons are in the form of triangular transactions and nearly 146,000 tons in the form of local purchases. Besides Community action, the Federal Republic of Germany accounts for most of the triangular transactions, while the Netherlands and Italy account for most of the local purchases.

The food aid program of 1985/86, announced in January 1986, indicates that the Community will allocate the same volume of cereals as in the regular 1984/85 program, although the volume of all noncereals will fall. Overall volume will decline 7 percent compared with the regular 1984/85 program. As of March 31, about 40 percent of the cereals were allocated, mostly to multilateral organizations. Ethiopia, the largest country recipient, was allocated 100,000 tons, compared with 120,000 in 1984/85. The volume of SMP, again the second largest commodity, will drop more than 10 percent. As of March 31, most SMP allocations were to multilateral organizations and nongovernmental organizations. Butteroil and vegetable oil donations will fall by 5 percent each, while that of sugar will drop by almost two-thirds. Other commodities will fall by more than 40 percent.

The FAO estimates that the EC will ship about 1.58 million tons in 1985/86, less than the minimum pledge of 1.65 million tons under the FAC, and a drop of about 15 percent from 1984/85.

JAPAN

Japanese cereal aid in the 1984/85 trade year was an estimated 330,000 tons, down about 25 percent from the previous year. Only about 30 percent of Japan's cereal aid in 1984/85 was in the form of wheat and flour; almost all of the remainder was rice. All of Japanese food aid was purchased from other sources.

In the April-March 1984/85 fiscal year, Japan supplied about 277,000 tons of cereals, of which 83,000 tons of wheat were purchased from the United States. Rice was purchased from Thailand, Burma, and Pakistan. Africa received slightly less than 40 percent of the total commodity allocations and Asia received most of the remainder.

In the 1985/86 fiscal year, provisional data indicate that 405,000 tons were supplied. About 132,000 tons of wheat and flour were purchased from the United States. Africa's share rose to slightly less than one-half. As of mid-June, the Japanese pledged about 70,000 tons of cereals for Sub-Saharan countries; chief recipients are Mozambique, Madagascar, and Zambia.

Volume of food aid contributions, principal commodities

Commodity/country	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	Estimated shipments 1/	
								1985/86	1986/87
	1,000 metric tons (grain equivalent 2/)								
Grains 3/	9,501	8,887	8,943	9,140	9,199	9,903	12,513	10,910	10,910
Argentina	30	38	67	20	33	30	51	35	30
Australia	329	315	370	485	349	460	466	400	400
Canada	735	730	600	600	843	890	943	900	910
European Community 4/	1,159	1,206	1,278	1,580	1,571	1,890	2,468	1,580	1,580
Finland	8	19	29	9	28	40	20	20	20
Japan	352	688	914	507	517	445	330	300	300
Norway	10	11	40	36	36	17	43	30	30
Sweden	104	98	94	119	87	83	88	80	88
Switzerland	32	32	16	22	29	30	39	27	25
United States	6,238	5,339	5,212	5,341	5,375	5,655	7,536	7,200	7,200
Others	504	411	323	421	331	363	529	338	327
Other commodities	1979	1980	1981	1982	1983	1984	1985	1986	1987
Vegetable oils	190	262	309	346	342	338	387	NA	NA
United States	151	234	275	300	290	271	NA	NA	NA
Other	39	28	34	46	52	67	NA	NA	NA
Dairy products	333	296	428	334	318	454	442	NA	NA
United States	83	90	122	129	168	197	NA	NA	NA
Other	250	206	306	205	150	257	NA	NA	NA

NA = Not available.

1/ Estimates based on minimum contributions under the 1980 Food Aid Convention, budgetary allocations, historical patterns, current food aid policies, and other sources.

2/ To express cereal food aid in grain equivalent, wheat, rice and coarse grains are counted on a one-to-one basis; for grain products, appropriate conversion factors are used to determine the grain equivalent.

3/ In addition, unofficial reports indicate that the USSR provided several Asian countries with 400,000 tons each in 1978/79, and 200,000 tons each 1979/80, as emergency aid.

4/ Aid from individual members as well as Community action. Ten member countries, prior to accession of Portugal and Spain.

Sources: Food and Agricultural Organization, U.S. Department of Agriculture, and U.S. Agency for International Development.

ADDITIONAL FOOD NEEDS OF LOW-INCOME COUNTRIES

Financial Situation in the Low-Income Countries

The financial resources of the low-income countries studied in this report are expected to improve in 1986, after deteriorating slightly in 1985. Stabilizing export earnings, rising reserves, and debt-service payments that will rise only slightly will likely increase each region's foreign exchange available to import food commercially. These projections through 1987/88 are based on the assumptions that commodity prices will increase over the lows of 1985, that interest rates will continue low and stable, and that the dollar will remain at its current value against other currencies.

Export earnings are projected to decline about 1 percent in 1986, but to rebound almost 4 percent the following year. The 1986 declines are the result of conditions in Africa and the effect of low petroleum prices in Indonesia. Falling commodity prices through most of 1985 forced export earnings down last year. Prices for coffee and agricultural raw materials rose during the course of the year but prices for all other major categories, notably petroleum, were lower at the close than the start of 1985.

Total imports are expected to increase marginally in 1986, as savings from lower oil-import costs in most countries are apt to be roughly offset by increases elsewhere. Stabilizing petroleum prices by 1987 are likely to contribute towards a rise in total imports that year. Imports declined for the fourth consecutive year in 1985, but the decline was localized in Indonesia, which cut back imports in the face of its export shortfall, the Philippines, and several Latin American countries.

By mid-1986, general economic and financial conditions suggest that the foreign exchange position of many low-income countries will improve over the projection period. Prices for some major commodities, notably coffee, have already begun to rise. Petroleum prices have declined roughly $16 per barrel from the 1985 average of $28. While this decline poses severe hardship for several countries, particularly Indonesia and Ecuador, most countries are able to raise their imports of nonpetroleum goods through savings on petroleum imports. The link between rising industrial production in the developed countries and increasing commodity prices in world markets appears weakened, following the disparate behaviors of the two during the current expansion in the developed economies. Nevertheless, continuing growth in the developed economies, as is forecast over the projection period, will likely have some upward pressure on commodity prices.

A second major influence that will likely aid many of the low-income countries is the 30-percent decline in the dollar's value since February 1985. The declining dollar lowers the foreign-currency price of many imports, thus reducing import bills or allowing a higher volume of imports for the same dollar outlay. The depreciation of the dollar would also reduce costs of debt-repayments, to the extent that countries' international debts are denominated in dollars, by lowering the amount of country currency needed to purchase dollars.

Despite the projected slow rate of improvements in the low-income countries, the outlook is somewhat more positive than in the past 6 years. Growth rates for exports are expected to average nearly 2 percent over 1986–87, compared with an estimated 1.4 percent annual contraction during 1980–85. Imports are projected to increase an average of 1.6 percent over 1986–87, compared with an average decline of .4 percent during 1980–85.

Asia's financial outlook over the projection period appears brighter than that for Africa and Latin America, owing to better prospects for exports. The region's exports declined an estimated 7 percent in 1985, primarily because of depressed commodity prices. For 1986, Indonesia will be especially hard hit by the 35-percent drop in dollar-denominated petroleum prices, measured from the average of 1985 to the average of the first half of 1986.

Exports from other countries are likely to stabilize or increase if prices for commodities other than petroleum remain stable or improve. In addition, countries that export to the United States, Japan, and the high-growth countries of East Asia will gain indirectly from the oil-price decline; the latter group of countries will likely increase their demand for a variety of goods as a result of their savings from lower oil prices. Textiles and light manufactures are more likely to fill this demand than unprocessed goods, which would favor Asia, since low-income countries there produce processed goods more easily than countries in Africa or Latin America.

The outlook for Africa's financial resources appears fairly good, assuming weather conditions are favorable. Commodity prices, except for metals, turned up during the first quarter of 1986, suggesting that export prospects for the remainder of 1986 will improve for most countries. Still, problems remain. Low oil prices will adversely affect Egypt and the Yemens, while depressed metals prices will likely limit, if not cut back, Zaire's exports. Most countries that depend upon exports of foods, coffee, or agricultural raw materials are expected to see significant increases in exports this year.

Latin America is the only low-income region that is expected to have increased exports in both 1986 and 1987. Furthermore, it is the only region that enjoyed increased exports in the previous 2 years. Strengthened prices for coffee, bananas, and sugar, will likely raise earnings sufficiently in countries that export those commodities to offset potential declines in countries that export metals and petroleum. Increases in imports will probably be meager, at best.

Selected financial data for developing countries, 1985 estimates and forecasts for 1986 and 1987

Region and subregion	Yearend reserves			Imports			Exports			Debt service		
	1985	1986	1987	1985	1986	1987	1985	1986	1987	1985	1986	1987
					Million dollars							
North Africa	1421	1421	1421	21569	21500	22150	18872	16828	17250	NA	3850	3941
West Africa	1335	1335	1335	5729	6340	6600	5697	5838	5914		824	857
Central Africa	200	200	200	2153	2329	2408	3346	2931	3261		391	440
East Africa	739	739	739	6510	6640	6841	3614	4120	3993		811	778
Southern Africa	1259	1259	1259	4828	5055	5376	4375	4805	5098		886	950
Middle East	1568	1568	1568	4575	4305	4185	3067	2650	2499		91	87
Subtotal 1/	6522	6522	6522	45364	46169	47560	37674	37031	38015		6853	7052
South Asia	8557	8668	8862	33933	33281	34319	23720	24593	26088		5352	5871
Southeast Asia	5613	5600	6261	22021	21995	22743	25646	24288	25487	NA	7304	8061
Subtotal	14170	14268	15123	55954	55276	57062	49366	48881	51575		12656	13928
Caribbean	346	286	301	4270	4310	4350	2920	2930	2960		511	517
Central America	1192	1377	1429	6828	7057	7240	5027	5245	5360		825	834
South America	4812	5192	5172	15092	15069	15325	13437	13386	13827		4751	4659
Subtotal	6350	6856	6907	26190	26436	26915	21383	21561	22147		6087	6010
Grand total	27042	27646	28552	127508	127881	131537	108424	107473	111737	NA	25595	26990

1/ Due to insufficient information, 1986 and 1987 yearend reserves are extended from 1985.

Commercial Capacity To Import Food

Several alternative methods are available to convert general financial indicators into precise measures of the low-income countries' capacity to import food. The calculation used in this study is based on estimates of each country's foreign exchange earnings, import bills, foreign exchange reserves and debt service, and historical commercial food import patterns and food import unit values. Estimates of a country's foreign exchange earnings were made on the basis of export trade forecasts and, in selected cases, other sources of earnings such as worker remittances and tourism. The foreign exchange earnings estimate was added to estimates of a country's foreign exchange reserves to arrive at total foreign exchange supplies. The total was then adjusted using historical and estimated import bills to maintain the country's historical reserves-to-imports ratio.

The adjusted foreign exchange availability estimate was reduced further by the country's debt-service obligations to arrive at a net foreign exchange availability. The proportion of this net foreign exchange availability allocated to commercial food imports in the base period was held constant and used to calculate the foreign exchange available in the forecast period for commercial food imports. The volume of imports that could be purchased is estimated using this final estimate of net foreign exchange availability and expected food import unit values.

Measures of Additional Food Needs

Conceptual Framework

The financial indicators noted above and the food data described below are used to generate two alternative measures of food needs in addition to estimated commercial import capacity. Countries must choose between making extraordinary commercial purchases and seeking food aid to fill this gap. However, extraordinarily large commercial imports, particularly in successive years, would be at the cost of other imports, including imports of development goods. In addition, a measure is computed of the maximum quantities of commodities which countries could feasibly import. Each measure highlights a different aspect of the food problem in the low-income countries and a different notion of the role aid might play in easing the problem. For a more detailed discussion, see the section entitled "Methodological Notes."

The first measure, termed "status quo," estimates the additional food needed to maintain per capita use of food staples at levels reported in recent years. Per capita food use is calculated as the mean of the most recent 4 years that do not deviate more than one standard deviation from the mean of the most recent 8 years. This per capita food use is called base-use in the following descriptions of tables and elsewhere in this report. The data years employed in calculations for this report are 1978/79 through 1985/86. No provision is made either for improving substandard diets, for reducing allocations to countries where diets are relatively good, or for correcting problems related to the uneven distribution of food across or within countries. Because status quo estimates support a level of per capita availability that has been achieved in the past, in most cases they can be considered to be consistent with the capacity of countries to absorb food imports.

The second measure, termed "nutrition-based," estimates the additional food required to raise per capita caloric intake to the levels associated with FAO's recommended minimum diet. This measure is based on the notion that food aid might be utilized in a way consistent with nutritional need rather than to maintain a recent, possibly substandard, status quo. In this sense, the nutrition-based measure might be viewed as a maximum level of additional food need, but not necessarily consistent with a country's ability to absorb food imports.

The measure of food import feasibility called "maximum absorbable imports" provides one basis for assessing what maximum quantity of additional food might be imported toward meeting large nutrition-based food needs, or possibly for building stocks in a period of ample world food supplies. The implicit assumption is that the food delivery systems of many of the countries involved have been fully "loaded" by past high levels of consumption. In addition, the highest level of stocks maintained over the previous 8 years is assumed, in the absence of better information, to be the largest level that can currently be maintained. The estimate is intended to provide a crude measure of the amount of food that can be physically absorbed. This level may then be used to scale back nutrition-based additional food need estimates that may be beyond the physical limits of a country's transportation, distribution, and storage capabilities.

While the status quo and nutrition-based methods differ in the estimation of requirements, they have a common structure. In each, an estimate of every country's domestic supplies of food staples is subtracted from an estimate of staple food requirements to arrive at a quantity estimate of import requirements. Import requirements are then totaled for food groups, based on assumptions regarding their substitutability. An estimate of a country's capacity to commercially import food in each category is then subtracted from the import requirement to arrive at an estimate of additional food needs. Estimated import unit values for each food group are used to generate import requirements, and additional food needs estimates in both quantity and value terms.

Several factors affecting additional food needs in a country are not addressed in these estimates. First, food distribution problems---both geographical and across income or population groups--are overlooked by the use of national level food availability and country average food requirement measures. These can mask acute shortages in specific places within a country as well as uneven distribution of food across population groups. However, measuring the unevenness of food distribution is extremely difficult, because data are not available. Acute problems of this nature are treated qualitatively in the country narratives.

Second, additional food needs are estimated without reference to a country's food and agriculture policies and current performance. Although these issues figure importantly in a country's choice between exceptional commercial food purchases and requesting concessional food imports, a comprehensive consideration of them is beyond the scope of this report.

Introduction to Regional and Country Narrative Tables

The following section reports on the food and financial situation and outlook for 69 countries in Africa, the Middle East, Asia, and Latin America. The materials summarize events during the 1985/86 local marketing year (generally July-June) and project food and financial conditions for 1986/87 and 1987/88.

Data shown in the tables must be interpreted with caution. Forecasts of food production, population, and financial conditions for 1986/87 and 1987/88 represent ERS's forecasts of what is likely to happen during those years. But, 1986/87 and 1987/88 estimates of all other items—stocks, use, import requirements, and additional needs—are not forecasts of what is likely to happen; they are targets derived using the status quo and nutrition assumptions summarized in the previous section, and explained in detail in the "Methodological Notes" section of this report. Additional food needs calculations are also subject to a number of adjustments detailed in the Methodology section.

In each of the regional and country tables, any quantity less than 500 tons and any value less than $500,000 is shown as zero.

Tables entitled "[Region] basic food data"

These tables provide major cereal supply and utilization data and population for regions for 1980/81-1985/86 and for forecast years (1986/87-1987/88).

Tables entitled "[Region] cereal use, additional food needs to support consumption, and stock adjustment

These tables deal only with 1986/87-1987/88 country estimates aggregated for the regions. The explanation for column headings is the same as for column headings in the country tables, as described below.

Tables Entitled "[Country] basic food data"

These tables provide food staple supply and utilization data for 1980/81-1985/86 and for forecast years (1986/87 and 1987/88). An explanation of each column heading follows:

1. Actual or forecast production--actual production for the individual staples for 1981/82-1985/86 and forecast production for 1986/87 and 1987/88.

2. Net imports—actual net imports during 1981/82-1985/86. Net import figures for forecast years are not supplied. Instead, estimated import requirements based on status quo and nutrition-based approaches are provided in the next set of tables.

3. Nonfeed use--actual human consumption, 1981/82-1985/86.

4. Feed use--actual feed use, 1981/82-1985/86 and targeted feed use for 1986/87 and 1987/88. Targeted feed use is calculated to maintain per capita feed use at base-use levels. The same base-use level of feed use is employed in the status quo and nutrition-based estimates of aid needs.

5. Beginning stocks--actual stocks for 1981/82-1985/86, where reliable stocks data are available. Initial calculations of status quo and nutrition-based import and aid needs are done by maintaining the ending stocks for 1985/86 (beginning stocks 1986/87) constant throughout the forecasting period. Import requirements for building food security stocks are calculated subsequently for the countries for which stock data are available.

6. Per capita total use--actual per capita human consumption and livestock feed use for 1981/82-1985/86.

7. Commodity coverage--the food staples included for each country.

8. Share of diet--each staple's share of total daily caloric intake, and the share of total daily caloric intake covered by the food staples analyzed. Data are drawn from the 1979-81 FAO Food Balance Sheets with adjustments made in some cases for differences in FAO or ERS estimates of feed use or more recent significant changes in a staple's share of the diet.

Tables Entitled "Import requirements for [Country]"

These tables deal only with 1986/87 and 1987/88 estimates. An explanation of each column heading follows:

1. Forecast domestic production--data are drawn from the "basic food data" tables.

2. Total use, status quo--total amount of a staple needed to maintain per capita human consumption at the base-use level and feed use at the targeted level.

3. Total use, nutrition-based--the amount of a staple needed to support FAO recommended minimum daily per capita caloric intake levels and targeted feed use.

4. Import requirements, quantity, status quo--the imports of a staple required to maintain per capita consumption, and also to achieve the targeted levels of feed use with no change in stocks, as shown in the basic food data table. These estimates are calculated for each staple by subtracting forecast domestic production from status quo-based total use.

Subtotals for each commodity group are calculated by summing the import requirements for individual commodities. Calculated surpluses (negative import requirements) for individual commodities within groups are subtracted from deficits in other commodities because foods are assumed to be substitutable within groups. Noncereals such as roots and tubers are converted to caloric wheat equivalents before being summed. Negative subtotals are shown as zeros because these calculated surpluses are assumed not to be substitutable elsewhere in the diet.

5. Import requirements, quantity, nutrition-based—the imports of a staple required to support recommended minimum per capita caloric intake, and targeted feed use, as no change in stocks is shown in the basic food data tables. These estimates are calculated by subtracting forecast domestic production from nutrition-based total use. Totals for each commodity group by year are computed as described in (4) above.

6. Import requirements, maximum—the largest quantity that could be managed if countries wished to take the greatest advantage of low grain prices to improve stocks or to improve on the nutritional status of the population.

Tables Entitled "Additional food needs for [Country], with stock adjustment and as constrained by maximum absorbable imports"

These tables provide calculations of cereal import requirements and food needs in excess of normal commercial imports resulting from consumption requirements and from estimates of cereal stock adjustments required for food security purposes. The estimated stock increment (quantity and value) is added to import requirements and additional food needs to support consumption to arrive at total import requirements and additional food needs. The stock increment is shown only when it results in altered total additional food needs (i.e. when not offset by negative additional food needs for consumption). For a discussion of how stock increment estimates are calculated, see "Methodological Notes" in the annual report.

1. Commercial import capacity—an estimate of the amount of food within each group that a country can afford to import commercially without reducing below historical levels the share of its available foreign exchange used for nonfood imports. Countries are assumed in forecast years to spend the same proportion of available foreign exchange on commercial food imports as in the base period. The measure is sensitive to historical and projected levels of foreign exchange holdings, total merchandise imports and exports, and debt service. The measure is provided in both quantity and value, using the same country-specific estimates of unit import costs as in the import requirements estimate.

2. Additional food needs, quantity—the estimated quantity of additional food needed in each commodity group to support either the status quo or nutrition–based use level and targeted stock and feed use levels. Negative needs are shown as zero.

3. Additional food needs, value—the estimated value of the additional food needed in each commodity group to maintain either status quo consumption or nutrition–based consumption and targeted stock and feed use levels.

Tables Entitled "Financial indicators for [Country], actual and projected"

These tables give historical data and forecasts for four key financial indicators: yearend international reserves, merchandise exports, merchandise imports, and debt–service obligations. All data are on a calendar year basis and are compiled from a variety of sources, including the World Bank, the International Monetary Fund, Chase Econometrics, country sources, and ERS estimates.

North Africa

Lower oil prices and extreme weather conditions are the key factors determining North African additional food needs in 1986/87. Petroleum is the major source of merchandise exports for both Egypt and Tunisia. Lower oil prices have tightened the foreign exchange available for imports and have consequently lowered their commercial import capacity as calculated in this report.

Unusually favorable weather in Morocco has contributed to a record grain harvest and unusually unfavorable weather in Tunisia has led to a very short harvest. Morocco's additional food needs are nil for the first time in years. Status quo needs for 1986/87 for North Africa are 2.4 million tons, while nutrition-based needs are zero.

North Africa basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
	1,000 tons			Thousand	Kilos
Major cereals					
1980/81	12,893	3,336	9,303	69,169	322
1981/82	10,679	3,257	11,091	71,074	311
1982/83	13,734	2,953	9,351	72,972	323
1983/84	12,262	2,435	11,821	74,926	321
1984/85	12,470	2,367	12,770	76,901	325
1985/86	13,907	2,582	12,495	78,910	326
1986/87	14,466	3,242	1/	81,077	
1987/88	14,166	3,242		83,303	

1/ The absence of a column entry in any table means such entry is inapplicable.

North Africa cereal use, additional food needs to support consumption, and stock adjustment

Commodity/year	Total use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
	1,000 tons	1,000 tons	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	26,007	22,531	2,439	368	0	0
1987/88	26,718	23,043	2,399	370	0	0
Stock adjustment						
1986/87			795	122	88	9
1987/88			156	20	73	8
Total						
1986/87			3,198	486	25	3
1987/88			2,481	383	0	0

EGYPT

Egypt's economic situation worsened recently because lower prices will cut 1986 exports of crude oil and petroleum products, which account for about three-fourths of total exports, by about $1.5 billion. Prices for Egypt's second major export, cotton, are also down. In 1986, the capital account deficit may rise to more than $3 billion, or double the 1983-85 average. Declining OPEC petroleum revenues have further reduced Egypt's foreign exchange inflow from remittances, and the reduction would have been more severe without special arrangements to provide manpower and services for Iraq. Income from Suez Canal tolls will be about $1 billion in 1986. The foreign debt now exceeds $32 billion. Efforts to curb further hikes in the foreign debt recently included a number of austerity measures designed to curb nonessential imports. Shortages of meat, pulses, and some other essential commodities have caused increased interest in credit programs for imports.

Total grain imports decreased slightly to 8.9 million tons in 1985/86, as commercial import capacity declined and concessional imports increased. Earlier forecasts of bumper grain harvests failed to materialize because farmers shifted land to cotton, clover, and vegetables. In 1986, grain production may rise to about 8 million tons with moderate gains for wheat and rice. Total agricultural imports are expected to increase 4 percent to $4.5 billion in 1986. Wheat and flour imports are expected to rise to about 7.2 million tons, with a rise in the U.S. share from a third to three-eighths because of extra purchases through Export Enhancement Programs.

Assessed status quo cereal needs for consumption are down from 1985/86, but increased stock adjustment needs will result in increased total cereal needs.

Egypt basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	7,373	2,545	6,267	11,408	2,357	327	Wheat	33.1
1981/82	7,424	2,420	7,294	12,072	2,964	347	Rice	11.5
1982/83	7,714	2,102	7,017	11,857	3,119	336	Corn	18.3
1983/84	7,883	1,857	8,242	12,207	3,684	347	Sorghum	1.9
1984/85	7,788	2,091	9,018	12,684	4,092	356	Barley	0.0
1985/86	7,818	2,121	8,992	12,873	3,698	342	Total	64.9
1986/87	8,130	2,360						
1987/88	8,325	2,360						

Import requirements for Egypt

Commodity/year	Production	Total use Status quo	Total use Nutrition-based	Import requirements Status quo	Import requirements Nutrition-based	Import requirements Maximum
	1,000 tons					
Cereal equivalent						
1986/87	8,130	17,044	13,892	8,914	5,762	10,408
1987/88	8,325	17,503	14,252	9,178	5,927	10,689

Financial indicators for Egypt, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available Total	Foreign exchange available Share to major food imports
	Million dollars					Percent
1980	9,307	9,745	1,411	1,046	7,896	15
1981	10,449	12,054	1,911	716	8,538	20
1982	10,091	12,385	1,905	698	8,187	19
1983	11,250	13,610	1,999	771	9,251	19
1984	12,237	14,451	2,352	736	9,885	16
1985	11,157	13,913	2,555	792	8,602	
1986	10,000	13,100	1,854	792	8,216	18
1987	9,600	12,700	1,780	792	7,912	18

Additional food needs to support consumption for Egypt, with stock adjustment

Commodity/year	Commercial import capacity Quantity	Commercial import capacity Value	Status quo Quantity	Status quo Value	Nutrition-based Quantity	Nutrition-based Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	6,844	1,085	2,071	328	0	0
1987/88	6,779	1,045	2,399	370	0	0
Stock adjustment						
1986/87			707	112	0	0
1987/88			82	13	0	0
Total						
1986/87			2,777	440	0	0
1987/88			2,481	383	0	0

MOROCCO

Favorable weather and a larger cultivated area are likely to bring Morocco a record grain harvest in 1986. Total production is forecast at 5.7 million tons, with wheat comprising 2.95 million. Import requirements for 1986/87 are below 1 million tons, well within Morocco's commercial import capacity. A World Bank loan of $100 million has been granted for imports of agricultural inputs for private farms in rainfed cereal production. Morocco's substantial external debt, now $13 billion and greater than GDP, has been rescheduled, yielding some financial relief through 1987. Debt service payments are projected to run $1.5 billion in 1986, significantly less than before rescheduling. In the short run, this improves Morocco's external liquidity and its commercial import capacity.

Morocco basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	4,354	580	2,220	5,740	778	317	Wheat	41.9
1981/82	2,021	636	2,655	4,122	559	222	Corn	3.0
1982/83	4,764	631	1,470	5,519	898	298	Barley	21.4
1983/84	3,457	448	2,296	4,868	1,075	269	Total	66.2
1984/85	3,658	166	2,652	4,952	1,088	268		
1985/86	4,022	436	2,651	5,197	1,110	273		
1986/87	5,735	802						
1987/88	4,540	802						

Import requirements for Morocco

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereal equivalent						
1986/87	5,735	6,590	6,662	855	927	1,815
1987/88	4,540	6,784	6,662	2,244	2,122	3,233

Financial indicators for Morocco, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service due	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	3,270	3,770	1,193	399	2,077	23
1981	3,084	3,840	1,266	230	1,818	34
1982	2,945	3,815	1,334	218	1,611	29
1983	2,931	3,301	1,120	203	1,811	20
1984	3,292	3,600	1,134	220	2,158	21
1985	3,611	3,700	2,117	220	1,494	
1986	3,678	3,950	1,462	220	2,200	23
1987	3,725	3,850	1,481	220	2,234	23

Additional food needs to support consumption for Morocco

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	3,356	351	0	0	0	0
1987/88	3,506	356	0	0	0	0

TUNISIA

An especially severe drought has cut forecasts of Tunisia's 1986 grain crop to 601,000 tons--about half the size of a normal harvest, and one-third the size of 1985's record 2.1-million-ton crop. Petroleum has accounted for half of Tunisia's merchandise exports and the record decline in oil prices has reduced its import budget. A worsening of relations with neighboring Libya led to the expulsion of Tunisian workers from Libya and the end of Libyan tourists and shoppers in Tunisia. Worker remittances from Libya and receipts from Libyan visitors who have relied on Tunisian merchants for consumer goods were both significant sources of foreign exchange. A shortage of foreign exchange developed in mid-1985 and import controls were imposed. The import situation has remained tight ever since. All these factors have combined to lower Tunisia's commercial import capacity. Status quo import requirements for 1986/87 are 1.8 million tons, exceeding commercial import capacity by 369,000 tons. Tunisia's per capita wheat consumption is among the highest in the world--bread is heavily subsidized--and status quo levels are far in excess of nutritional needs. While nutrition is not a concern in most of metropolitan Tunis and the affluent coastal areas, the drought has undoubtedly struck hard at the diets of rural households in the poorer southern and western parts of the country, as well as, perhaps, poorer urban households.

Tunisia basic food data

Commodity/year	Actual or forecast production	Begin-ning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	1,166	211	816	1,590	402	307	Wheat	53.0
1981/82	1,234	201	1,142	1,730	627	354	Barley	2.3
1982/83	1,256	220	864	1,741	469	323	Corn	.0
1983/84	922	130	1,283	1,699	526	317	Total	55.4
1984/85	1,024	110	1,100	1,707	502	307		
1985/86	2,067	25	852	1,985	879	388		
1986/87	601	80						
1987/88	1,301	80						

Import requirements for Tunisia

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereal equivalent						
1986/87	601	2,372	1,976	1,771	1,375	2,474
1987/88	1,301	2,431	2,129	1,130	828	1,846

Financial indicators for Tunisia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	3,296	3,823	431	590	2,866	9
1981	3,616	4,108	517	536	3,099	8
1982	3,208	3,929	483	607	2,725	7
1983	3,097	3,657	560	567	2,537	10
1984	3,343	3,724	682	409	2,661	7
1985	3,563	3,956	668	409	2,895	
1986	3,150	3,700	534	409	2,542	8
1987	2,975	3,600	505	409	2,410	8

Additional food needs to support consumption for Tunisia, with stock adjustment

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	1,403	153	369	40	0	0
1987/88	1,368	145	0	0	0	0
Stock adjustment						
1986/87			52	6	52	6
1987/88			48	5	48	5
Total						
1986/87			421	46	25	3
1987/88			0	0	0	0

West Africa

West African grain production in 1986 is forecast to decline about 7 percent from the record 10 million tons harvested in 1985. While the crop season is well underway in coastal countries and normal output is anticipated, the outlook for the Sahel is much more uncertain. By mid-June, planting had begun in southern Mali and Burkina, and sporadic showers were reported in southern Senegal and Niger and central Mali. The critical rainfall period in the Sahel is July and August. Drought conditions at this time will sharply reduce output. However, most countries are entering the current season with adequate stocks that could be drawn down in an emergency. The large stocks have also held down food prices in recent months. Low prices can be a disincentive to producers and area planted in West Africa is likely to decline in 1986.

Import requirements for 1986/87 are 2.8 million tons, compared with actual 1985/86 imports of 2 million tons. The increase reflects the lower production estimated for 1986/87. In some cases, stocks could be drawn down to meet the import requirement. Status quo additional needs for 1986/87 are estimated at only 550,000 tons, compared to 800,000 in the May report, but are still 176,000 tons greater than 1985/86 needs. Increased commercial import capacity due to lower prices accounts for most of this change. Nutrition-based needs are three times the level of status quo, reflecting the poor nutritional levels in many West African countries.

West Africa basic food data

	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
	---------1,000 tons-------			Thousand	Kilos
Major cereals					
1980/81	8,100	291	2,083	67,516	151
1981/82	8,638	255	2,210	69,131	158
1982/83	8,286	190	2,188	70,941	148
1983/84	7,664	133	2,835	73,370	142
1984/85	7,335	179	2,834	75,809	133
1985/86	10,044	300	2,020	77,996	154
1986/87	9,352	390		80,213	
1987/88	9,741	390		82,493	

1/ Beginning stocks used in calculated additional food needs do not include, for some countries, exceptional carryover stocks of food aid. See individual country reports.

West Africa cereal use, additional food needs to support consumption, and stock adjustment

Commodity/year	Total use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
	1,000 tons	1,000 tons	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	17,347	18,163	549	97	1,560	288
1987/88	17,850	18,704	481	81	1,536	275
Stock adjustment						
1986/87			78	13	78	13
1987/88			24	4	24	4
Total						
1986/87			585	104	1,597	295
1987/88			499	84	1,554	279
Maximum absorbable						
Cereal equivalent						
1986/87			585	104	1,169	209
1987/88			499	84	1,096	189

BENIN

The 1986/87 crop season began in April in Benin with the start of the rains in the south. The major staple grain, corn, and root crops were planted early in the season. In the north, millet and sorghum planting began with the June rains. Indications are that early season rainfall was near normal with some dryness in May. Reliable yield estimates will not be made until August or September. Even though stock data are not available for Benin, good harvests in 1984 and 1985 mean that stocks have been rebuilt to normal or above levels. Food prices remained low in 1985. Some increase in imports is expected in 1986 because of a ban on imports of rice and corn by Nigeria. Grains are often transshipped through Benin to Nigeria. The United States is providing Export Enhancement Credit to Benin for wheat.

The sharp increase in Benin's 1986/87 commercial import capacity from 81,000 tons in the last report to 163,000 tons is due mainly to a 50-percent decline in world grain prices. Foreign exchange availability is also projected to increase in 1986 and 1987. The 1985 calculation includes debt service due, while the forecasts hold debt service payments at the 1982-84 ratio to exports. This doubling of the commercial import capacity eliminated the 45,000 tons of nutrition-based needs for 1986/87 reported in May.

Benin basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	340	0	89	429	0	124	Wheat	4.1
1981/82	358	0	117	475	0	133	Rice	3.1
1982/83	349	0	69	418	0	114	Corn	22.9
1983/84	348	0	83	431	0	114	Sorghum	4.6
1984/85	472	0	60	532	0	136	Millet	0.5
1985/86	557	0	70	627	0	155	Cassava	21.4
1986/87	502	0					Yams	13.7
1987/88	532	0					Total	70.2
Roots								
1980/81	1,277	0	0	1,277	0	369		
1981/82	1,241	0	0	1,241	0	348		
1982/83	1,288	0	0	1,288	0	350		
1983/84	1,200	0	0	1,200	0	316		
1984/85	1,456	0	0	1,456	0	372		
1985/86	1,606	0	0	1,606	0	398		
1986/87	1,450	0						
1987/88	1,500	0						

Import requirements for Benin

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	502	547	566	45	64	147
1987/88	532	566	589	34	57	140
Roots						
1986/87	1,450	1,515	1,581	65	131	346
1987/88	1,500	1,568	1,636	68	136	359
Cereal equivalent						
1986/87	1,072	1,141	1,187	69	115	234
1987/88	1,122	1,181	1,233	60	111	230

Financial indicators for Benin, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	161	314	9	8	153	10
1981	148	432	17	8	131	16
1982	144	466	15	5	130	19
1983	128	302	24	4	103	14
1984	170	237	38	3	132	18
1985	177	267	89	4	88	
1985	180	360	28	4	151	17
1986	200	370	31	4	168	17

Additional food needs to support consumption for Benin

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	163	23	0	0	0	0
1987/88	186	26	0	0	0	0

BURKINA

Burkina had good planting conditions early in the 1986 season. However, harvests will depend on adequate and timely rain through July and August. Grasshopper infestations are expected to occur as the rainy season gets underway, and could damage this year's crops.

Assuming a good harvest in 1986/87--but below the record crop of the previous year--import requirements should return to a more normal level of 127,000 tons. Burkina has substantial stocks due to local government purchases, and carryover food aid from 1985/86.

Commercial import capacity could increase to about 100,000 tons because of lower world grain prices. This compares with commercial imports of 70,000 tons in 1985/86.

Burkina basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	1,029	0	65	1,090	4	178	Wheat	1.6
1981/82	1,250	0	110	1,357	3	217	Rice	3.6
1982/83	1,186	0	82	1,266	2	198	Millet and	
1983/84	1,095	0	179	1,272	2	194	sorghum	56.1
1984/85	952	0	203	1,153	2	172	Corn	8.1
1985/86	1,571	0	101	1,670	2	242	Total	69.5
1986/87	1,315	0						
1987/88	1,366	0						

Import requirements for Burkina

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	1,315	1,442	1,512	127	197	399
1987/88	1,366	1,478	1,553	112	187	391

Financial indicators for Burkina, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service due	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	161	368	17	54	144	27
1981	159	348	15	56	144	17
1982	126	360	18	47	109	18
1983	126	262	16	71	110	21
1984	129	258	22	93	108	18
1985	127	280	45	124	83	
1986	130	300	17	124	150	19
1987	130	320	17	124	144	19

Additional food needs to support consumption for Burkina

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	101	13	27	3	97	12
1987/88	99	12	13	2	88	11

CAMEROON

Cameroon had good weather conditions early in the 1986/87 season. Harvests are estimated to increase slightly above last year's good crop, assuming favorable weather continues through the growing season. Import requirements are projected to be at normal levels of about 230,000 tons. Cameroon's strong economy will enable it to commercially import nearly all of its requirement.

Cameroon is close to self-sufficient in food production. Rising cereal imports in recent years primarily reflects growing consumer demand for these commodities because of urbanization and rising incomes.

Cameroon basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	885	0	198	1,061	22	127	Wheat	3.9
1981/82	814	0	174	962	26	112	Rice	2.7
1982/83	983	0	225	1,186	22	134	Corn	11.5
1983/84	924	0	265	1,161	28	129	Millet	14.5
1984/85	949	0	272	1,189	32	129	Cassava	11.4
1985/86	1,004	0	248	1,220	32	129	Yams & sweet	
1986/87	1,048	0					potatoes	5.0
1987/88	1,075	0					Plantains	8.1
							Peanuts	5.5
Roots							Total	62.7
1980/81	3,518	0	0	3,518	0	411		
1981/82	3,585	0	0	3,585	0	408		
1982/83	2,768	0	0	2,768	0	308		
1983/84	3,022	0	0	3,022	0	328		
1984/85	3,370	0	0	3,370	0	356		
1985/86	3,544	0	0	3,544	0	364		
1986/87	3,636	0						
1987/88	3,699	0						

Import requirements for Cameroon

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	1,048	1,234	1,192	186	144	298
1987/88	1,075	1,268	1,223	193	148	308
Roots						
1986/87	3,636	3,761	3,397	125	(239)	1,322
1987/88	3,699	3,866	3,478	167	(221)	1,397
Cereal equivalent						
1986/87	2,404	2,633	2,576	229	172	825
1987/88	2,457	2,706	2,640	249	184	862

Financial indicators for Cameroon, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	1,646	1,608	186	189	1,460	4
1981	1,407	1,368	206	85	1,201	3
1982	1,348	1,220	269	67	1,079	3
1983	1,162	1,223	204	159	958	5
1984	1,846	1,100	222	65	1,625	2
1985	1,300	1,200	288	40	1,012	
1985	1,600	1,200	257	40	1,300	3
1986	1,650	1,230	265	40	1,340	3

Additional food needs to support consumption for Cameroon

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	224	33	5	1	0	0
1987/88	237	34	12	2	0	0

CAPE VERDE

Cape Verde was one of the few African countries to be affected by drought in 1985/86. Production is expected to recover to normal levels in 1986/87. Recovery will have little impact on cereal import requirements, however, because Cape Verde depends so heavily on imports to meet its domestic consumption requirements. With a commercial import capacity of only about 8,000 tons, most of this food gap is met by aid. Some aid is donated on a regular basis to meet the country's chronic food deficit.

Cape Verde's import requirement of 70,000 tons in 1986/87 does not include estimated stock rebuilding requirements of about 8,000 tons. The stock adjustment was not calculated because of lack of data.

Cape Verde basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	7	0	59	66	0	228	Wheat	9.0
1981/82	3	0	60	63	0	215	Rice	9.0
1982/83	4	0	47	51	0	172	Corn	41.0
1983/84	3	0	91	94	0	311	Pulses	4.7
1984/85	3	0	65	68	0	222	Total	63.8
1985/86	1	0	77	78	0	250		
1986/87	3	0						
1987/88	4	0						
Pulses								
1980/81	2	0	0	2	0	7		
1981/82	3	0	0	3	0	10		
1982/83	4	0	0	4	0	13		
1983/84	5	0	0	5	0	17		
1984/85	5	0	2	7	0	23		
1985/86	2	0	2	4	0	13		
1986/87	4	0						
1987/88	4	0						

Import requirements for Cape Verde

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	3	73	50	70	47	96
1987/88	4	74	51	70	47	96
Pulses						
1986/87	4	4	4	0	0	3
1987/88	4	4	4	0	0	3

Financial indicators for Cape Verde, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service due	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	54	82	0	25	54	15
1981	43	86	0	26	42	13
1982	48	88	2	28	46	9
1983	51	86	3	26	48	6
1984	53	86	5	25	48	8
1985	55	60	6	25	50	
1986	57	60	3	25	60	8
1987	57	65	3	25	58	8

Additional food needs to support consumption for Cape Verde

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	8	1	61	10	39	6
1987/88	8	1	61	10	39	6
Pulses						
1986/87	1	0	0	0	0	0
1987/88	1	0	0	0	0	0
Total						
1986/87		2		10		6
1987/88		1		10		6

1/ Commercial import capacity surplus to additional food needs in individual commodity groups offsets some additional cereal needs.

CHAD

In Chad, 1985 was an exceptional year for food production with above-average rainfall and a strong supply response to food deficits caused by drought in 1984. As a result, food supplies in 1985/86 have been adequate in most of the country, although localized food shortages may still be identified. Total cereal imports during 1986 are not expected to exceed 75,000 tons.

Since Chad's harvest does not take place until October, it is too early to estimate 1986 output. Assuming satisfactory rainfall, cereal output is expected to decline to 500,000 tons, approximating the 1983 harvest.

Status quo and nutrition-based estimates of cereal import requirements are 151,000 and 415,000 tons, respectively, for 1986/87. Commercial import capacity is quite low. Although output of cotton, Chad's major source of foreign exchange earnings, compares well with previous years, low world cotton prices have crippled Chad financially.

Chad basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	647	0	30	677	0	153	Wheat	1.4
1981/82	548	0	73	621	0	137	Rice	3.8
1982/83	466	0	66	532	0	112	Corn	1.2
1983/84	490	0	97	587	0	119	Millet	47.7
1984/85	300	0	241	496	0	98	Cassava	7.2
1985/86	682	45	75	737	0	146	Total	61.3
1986/87	500	65						
1987/88	525	65						
Roots								
1980/81	185	0	0	185	0	42		
1981/82	191	0	0	191	0	42		
1982/83	197	0	0	197	0	41		
1983/84	200	0	0	200	0	41		
1984/85	170	0	0	170	0	34		
1985/86	200	0	0	200	0	40		
1986/87	205	0						
1987/88	210	0						

Import requirements for Chad

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	500	652	876	152	376	287
1987/88	525	668	899	143	374	282
Roots						
1986/87	205	203	303	(2)	98	12
1987/88	210	208	311	(2)	101	13
Cereal equivalent						
1986/87	582	733	998	151	415	291
1987/88	609	751	1,024	142	415	286

Financial indicators for Chad, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	71	55	2	0	69	13
1981	55	89	3	3	52	14
1982	52	83	0	7	52	7
1983	75	118	1	23	74	4
1984	112	129	10	44	102	3
1985	69	123	2	44	67	
1986	70	110	3	44	83	5
1987	70	110	3	44	83	5

Additional food needs to support consumption for Chad, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	13	2	138	23	403	67
1987/88	13	2	129	21	402	65
Stock adjustment						
1986/87			(7)	(1)	(7)	(1)
1987/88			1	0	1	0
Total						
1986/87			131	22	396	66
1987/88			130	21	403	65
Maximum absorbable						
Cereal equivalent						
1986/87			131	22	278	46
1987/88			130	21	273	44

GAMBIA

Good weather early in the 1986 season suggests at least a normal crop in Gambia, although harvests will depend on weather conditions through the summer. The 1986 harvest is assumed to be lower than last year's record, and import requirements are likely to increase to about 40,000 tons in 1986/87. Total imports could be higher because of the need to rebuild stocks, which were completely exhausted.

Gambia's financial import capacity should enable it to purchase most of its import requirements. Lower world grain prices have helped Gambia maintain its purchasing power despite severe foreign exchange constraints.

Total grain imports into Gambia in 1986/87 could far exceed domestic requirements, since rice importing has been shifted from the government to the private sector. Some of this is likely to be re-exported in Gambia's regional entrepot trade.

Gambia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	62	0	47	109	0	173	Rice	34.9
1981/82	80	0	38	118	0	181	Millet	7.5
1982/83	90	0	45	135	0	200	Wheat	5.6
1983/84	54	0	86	140	0	200	Corn	4.7
1984/85	74	0	41	115	0	159	Peanuts	0.0
1985/86	112	0	27	139	0	185	Sorghum	7.8
1986/87	99	0					Total	60.5
1987/88	112	0						

Import requirements for Gambia

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	99	140	140	41	41	57
1987/88	112	145	146	33	34	49

Financial indicators for Gambia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	49	140	1	6	48	24
1981	84	123	3	4	82	7
1982	74	95	11	8	64	16
1983	83	87	7	3	76	11
1984	64	99	7	2	57	17
1985	67	95	7	2	60	
1986	50	100	5	2	43	15
1987	52	105	5	2	45	15

Additional food needs to support consumption for Gambia

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	29	5	13	2	12	2
1987/88	31	5	0	0	3	1

GHANA

Food availability has improved dramatically in Ghana during the last 2 years. Grain production set a record in 1984 while roots reached a record in 1985. Donors purchased surplus Ghanaian corn in 1985 to relieve shortages in Burkina and Mali. Ghana also has surplus palm oil and has banned rice imports. The outlook for 1986 depends on the weather during July and August. The rains so far this season have been normal. Low food prices, however, are likely to result in lower area planted. Falling prices in 1984 contributed to reduced corn plantings in 1985. As in May, Ghana has neither status quo or nutrition-based needs.

Ghana's commercial import capacity increased from 450,000 tons in the last report to 550,000 tons. Rapidly increasing international reserves, along with higher cocoa exports, are the major factors. The World Bank and the International Monetary Fund are supporting an economic reform program in Ghana.

Ghana basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	648	0	259	837	70	84	Wheat	4.8
1981/82	693	0	197	820	70	81	Rice	4.0
1982/83	532	0	259	721	70	71	Corn	13.0
1983/84	422	0	273	645	50	58	Sorghum	4.8
1984/85	890	0	138	948	60	80	Millet	4.1
1985/86	723	20	140	803	70	67	Cassava	24.6
1986/87	735	10					Cocoyams	6.6
1987/88	775	10					Plantains	8.2
							Total	70.1
Roots								
1980/81	5,362	0	0	5,362	0	495		
1981/82	5,120	0	0	5,120	0	466		
1982/83	5,580	0	0	5,580	0	499		
1983/84	4,579	0	0	4,579	0	384		
1984/85	5,700	0	0	5,700	0	452		
1985/86	5,800	0	0	5,800	0	446		
1986/87	5,950	0						
1987/88	6,100	0						

Import requirements for Ghana

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	735	1,001	1,263	266	528	475
1987/88	775	1,031	1,303	256	528	471
Roots						
1986/87	5,950	6,240	4,821	290	(1,129)	730
1987/88	6,100	6,429	4,966	329	(1,134)	783
Cereal equivalent						
1986/87	2,920	3,292	3,081	372	161	583
1987/88	3,014	3,392	3,176	378	163	489

Financial indicators for Ghana, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	1,104	908	94	180	1,010	5
1981	711	954	53	146	658	9
1982	607	589	62	139	545	10
1983	439	539	100	145	339	21
1984	566	668	81	302	485	12
1985	610	785	101	479	509	
1986	700	850	96	479	732	14
1987	750	900	103	479	755	14

Additional food needs to support consumption for Ghana

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	548	93	0	0	0	0
1987/88	581	96	0	0	0	0

GUINEA

Despite poor timing of rainfall in parts of Guinea, 1985 cereal output increased to 419,000 tons, 8 percent above the 1984 harvest. There were grain production shortfalls in parts of the interior, but overall food supplies are satisfactory. Since Guinea's main crops are harvested between September and November, 1986 production is estimated from past trends.

Guinea is receiving considerable balance of payments support to assist in the implementation of extensive policy reforms. Guinea's new leadership is determined to boost the country's agricultural production. It has raised producer prices, abolished state farms and discontinued most price controls and mandatory sales of agricultural products to the Government. Through reforms in prices and exchange rates, the Government also hopes to halt the smuggling of agricultural commodities to neighboring countries. These measures may offset the damage done to Guinea's financial position by declines in alumina and bauxite prices.

Food deficits are expected to continue through the next 2 years. Assuming moderate growth in cereal and root crop output, status quo import requirements will be 142,000 tons in 1986/87. Commercial import capacity is expected to be insufficient to meet this need. Bauxite and alumina provide most of Guinea's export earnings. Status quo additional food needs for 1986/87 are assessed at 65,000 tons as compared to 22,000 tons in 1985/86. Nutrition-based needs are also up by 43,000 tons.

Guinea basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	358	42	141	491	0	103	Rice	30.6
1981/82	342	50	130	487	0	100	Cassava	16.8
1982/83	384	35	129	513	0	104	Wheat	2.8
1983/84	359	35	178	542	0	107	Corn	3.4
1984/85	388	30	110	493	0	93	Millet	3.6
1985/86	419	35	125	544	0	97	Total	57.2
1986/87	445	35						
1987/88	470	35						
Roots								
1980/81	480	0	0	480	0	101		
1981/82	485	0	0	485	0	100		
1982/83	500	0	0	500	0	101		
1983/84	500	0	0	500	0	99		
1984/85	525	0	0	525	0	99		
1985/86	540	0	0	540	0	96		
1986/87	550	0						
1987/88	560	0						

Import requirements for Guinea

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Major cereals						
1986/87	445	587	666	142	221	194
1987/88	470	605	694	135	224	187
Roots						
1986/87	550	581	768	31	218	50
1987/88	560	598	791	38	231	58
Cereal equivalent						
1986/87	666	821	975	154	308	205
1987/88	695	845	1,012	150	317	201

Financial indicators for Guinea, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	495	394	96	67	399	12
1981	493	426	83	68	410	10
1982	444	378	78	108	366	4
1983	502	366	68	115	435	8
1984	510	407	105	95	405	4
1985	514	396	84	95	430	
1986	525	450	90	95	410	6
1987	550	500	94	95	418	6

Additional food needs to support consumption for Guinea, with stock adjustment, and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	103	20	52	10	206	40
1987/88	108	20	42	8	209	39
Stock adjustment						
1986/87			13	3	13	3
1987/88			9	2	9	2
Total						
1986/87			65	12	219	42
1987/88			51	10	218	41
Maximum absorbable						
Cereal equivalent						
1986/87			65	12	102	20
1987/88			51	10	94	18

GUINEA-BISSAU

With May rainfall, Guinea-Bissau's 1986 planting season got off to a normal start. Harvests occur between September and December. Above-average harvests were reported for 1985. All parts of the country had good harvests, except the northwest coastal area, where early drought led farmers to plant millet and sorghum instead of rice. However, late and extended rains prevented crop failures. Assuming average growing conditions, 1986 output is expected to decline slightly from the 1985 peak.

If this production assumption holds, import requirements will be low in 1986/87 and could be covered by commercial imports. However, Guinea-Bissau, often considered a Sahelian country, is subject to frequent drought. Since it is in a weak foreign exchange position, it would have difficulty responding to a food production shortfall. Its main exports are peanuts, palm kernels, and cashew nuts. Drought and low producer prices in recent years have hurt export earnings. The country depends heavily on foreign aid.

In late 1983, Guinea-Bissau initiated an Economic Recovery Program, devaluing the peso, raising agricultural producer prices, and increasing support to the agricultural sector. Ultimately, this should help Guinea-Bissau increase its capacity for food self-reliance.

Guinea-Bissau basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	63	0	41	94	0	120	Rice	39.5
1981/82	105	0	22	117	0	147	Corn	16.3
1982/83	108	0	23	123	0	151	Millet and	
1983/84	103	0	39	139	0	168	sorghum	4.5
1984/85	128	0	34	162	0	192	Total roots	6.4
1985/86	142	0	30	172	0	200	Total	66.7
1986/87	137	0						
1987/88	147	0						
Roots								
1980/81	40	0	0	40	0	51		
1981/82	40	0	0	40	0	50		
1982/83	40	0	0	40	0	49		
1983/84	35	0	0	35	0	42		
1984/85	40	0	0	40	0	48		
1985/86	45	0	0	45	0	52		
1986/87	50	0						
1987/88	55	0						

Import requirements for Guinea-Bissau

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	137	144	146	7	9	68
1987/88	147	147	149	(0)	2	61
Roots						
1986/87	50	41	50	(9)	0	(3)
1987/88	55	42	52	(13)	(3)	(7)
Cereal equivalent						
1986/87	156	160	165	4	9	67
1987/88	168	163	169	(5)	1	59

Financial indicators for Guinea-Bissau, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	11	55	3	12	8	52
1981	14	52	2	15	12	55
1982	12	69	3	8	9	21
1983	9	57	2	4	7	44
1984	17	59	3	4	14	14
1985	21	65	15	4	7	
1986	25	65	5	4	19	26
1987	25	65	5	4	19	26

Additional food needs to support consumption for Guinea-Bissau

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	14	3	0	0	0	0
1987/88	14	3	0	0	0	0

LIBERIA

Favorable weather early in the 1986/87 season is expected to result in good harvests. Rice and cassava are the two dominant crops. Rice is a staple food in Liberia, and is produced on 90 percent of Liberia's farms.

Import requirements for 1986/87 are estimated at 126,000 tons. This represents a gradual and continuing increase in cereal imports, primarily rice, most of which is consumed in urban areas. Liberia's rice stocks were practically exhausted this year, and shortages have developed. The arrival of PL 480 rice beginning in late July should ease the tight supply.

Liberia's commercial import capacity is constrained by its severe financial problems. Estimated import capacity of 97,000 tons in 1986/87 is insufficient to cover Liberia's import requirements, resulting in a 33,000-ton status quo need and also a stock adjustment need.

Liberia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	159	24	108	270	0	142	Wheat	2.9
1981/82	165	21	116	282	0	144	Rice	44.5
1982/83	160	20	89	251	0	124	Cassava	20.5
1983/84	172	18	106	237	0	113	Total	67.9
1984/85	177	59	120	336	0	156		
1985/86	185	20	92	267	0	120		
1986/87	186	30						
1987/88	188	30						
Roots								
1980/81	188	0	0	188	0	99		
1981/82	200	0	0	200	0	102		
1982/83	176	0	0	176	0	87		
1983/84	185	0	0	185	0	88		
1984/85	190	0	0	190	0	88		
1985/86	200	0	0	200	0	90		
1986/87	210	0						
1987/88	216	0						

Import requirements for Liberia

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	186	312	275	126	89	202
1987/88	188	323	284	135	96	211
Roots						
1986/87	210	220	389	10	179	30
1987/88	216	228	402	12	186	32
Cereal equivalent						
1986/87	259	389	411	130	152	199
1987/88	263	402	424	139	161	209

Financial indicators for Liberia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	600	478	39	6	561	8
1981	529	412	27	7	502	9
1982	477	370	34	7	443	5
1983	428	367	31	20	397	9
1984	452	318	42	4	410	6
1985	420	325	52	2	368	
1986	440	340	32	2	402	7
1987	440	340	32	2	402	7

Additional food needs to support consumption for Liberia, with stock adjustment

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	97	21	33	7	55	12
1987/88	100	21	39	8	61	13
Stock adjustment						
1986/87			18	4	18	4
1987/88			2	0	2	0
Total						
1986/87			51	11	73	16
1987/88			40	8	62	13

MALI

The good 1985 harvest in Mali will lead to much lower grain imports in 1986. Total imports are estimated at 185,000 tons—down about 50 percent from last year. Mali has chronic food shortages and must import grain even in good years. The 1986/87 crop season begins in June and reliable estimates of the harvest will not be available until September or October. Production estimates used in this report are about 10 percent below last year's harvest. Unfavorable weather would reduce the output significantly.

The drop in world grain prices is reflected in a 20-percent increase in Mali's commercial import capacity. Mali's weak financial position is not expected to improve during the next 2 years. Earnings from the country's two major exports, cotton and livestock, will not rise this year. Even though cotton production is up, world prices are very low. Livestock exports will decline as herds are rebuilt following the drought. Total cereal use increased significantly in Mali because of a change in the years used to calculate per capita consumption. The poor nutritional level of the country is indicated by nutritional needs that are five times greater than status quo needs.

Mali basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	836	100	99	1,035	0	150	Wheat	1.6
1981/82	1,057	0	157	1,214	0	172	Rice	11.1
1982/83	973	0	155	1,128	0	156	Corn	4.6
1983/84	830	0	291	1,121	0	151	Millet	53.0
1984/85	662	0	359	991	0	131	Total	70.4
1985/86	1,123	30	185	1,288	0	167		
1986/87	1,000	50						
1987/88	1,045	50						

Import requirements for Mali

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereals						
1986/87	1,000	1,272	1,643	272	643	449
1987/88	1,045	1,299	1,681	254	636	434

Financial indicators for Mali, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	205	308	9	15	196	12
1981	154	269	9	17	145	22
1982	145	234	8	17	137	30
1983	165	246	13	16	152	32
1984	182	256	17	27	165	25
1985	172	255	80	23	92	
1986	170	250	12	23	160	29
1987	180	250	13	23	169	29

Additional food needs to support consumption for Mali, with stock adjustment, and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	187	43	85	20	456	105
1987/88	204	45	50	11	432	96
Stock adjustment						
1986/87			(1)	(0)	(1)	(0)
1987/88			1	0	1	0
Total						
1986/87			85	19	455	105
1987/88			51	11	433	97
Maximum absorbable						
Cereal equivalent						
1986/87			85	19	262	60
1987/88			51	11	230	51

MAURITANIA

Harvests in 1986 will depend on weather through late September/early October. Crop production is unlikely to be as high as last year's excellent harvests, when weather was unusually favorable. Grasshopper infestations also threaten this year's crop.

Imports should rise from last year's low level to over 200,000 tons in 1986/87. This assumes a lower, but normal harvest this year. Stocks are considered sufficient. Estimated commercial import capacity of 183,000 tons may be high in light of last year's commercial imports of only 88,000 tons.

Mauritania's cereal imports, particularly of wheat, have risen steadily since the late 1960's, reflecting the country's increased dependence on imported cereals as almost chronic drought has reduced grain and animal production. Status quo cereal needs are only slightly below 1985/86.

Mauritania basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	48	0	166	214	0	142	Wheat	16.0
1981/82	80	0	209	289	0	189	Rice	14.1
1982/83	22	0	256	278	0	178	Corn	1.2
1983/84	30	0	298	328	0	206	Millet	17.0
1984/85	18	0	212	230	0	142	Other grain	.0
1985/86	75	0	170	245	0	148	Total	48.2
1986/87	43	0						
1987/88	50	0						

Import requirements for Mauritania

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereal equivalent						
1986/87	43	258	267	215	224	305
1987/88	50	263	273	213	223	305

Financial indicators for Mauritania, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	196	321	30	140	166	18
1981	270	386	54	161	216	16
1982	240	427	40	139	200	25
1983	315	378	37	105	278	16
1984	294	302	42	78	252	20
1985	280	371	55	45	225	
1986	280	425	44	45	176	21
1987	285	480	45	45	166	21

Additional food needs to support consumption for Mauritania

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	183	28	32	5	41	6
1987/88	178	27	35	5	45	7

NIGER

Grain production in Niger recovered quickly from the 1984 drought. Imports in 1986 are expected to fall to 85,000 tons, compared with 387,000 in 1985. Per capita use in Niger is very high and maintaining the status quo level will require imports of over 200,000 tons in both 1986/87 and 1987/88. If production is normal in 1986, imports are likely to fall again in 1987. Production estimates for Niger will remain tentative until the season ends in October. A higher production estimate and lower use contributed to the decline in Niger's import requirements for 1986/87 compared with the May report.

Niger's commercial import capacity did not change in spite of lower world prices, because the country's financial position has deteriorated. Demand for uranium, which provides about 75 percent of the country's foreign exchange, has slackened and is not likely to recover. Projected debt service increased more than 20 percent from the last report while the share of foreign exchange allocated to food imports declined.

Niger basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	1,754	0	144	1,789	0	325	Wheat	1.8
1981/82	1,664	109	113	1,801	0	317	Rice	4.3
1982/83	1,679	85	63	1,772	0	303	Millet and	
1983/84	1,715	55	31	1,736	0	286	sorghum	62.3
1984/85	1,054	65	387	1,406	0	224	Total	68.4
1985/86	1,816	100	85	1,851	0	285		
1986/87	1,787	150						
1987/88	1,839	150						

Import requirements for Niger

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereals						
1986/87	1,787	1,997	2,110	210	323	392
1987/88	1,839	2,065	2,179	226	340	414

Financial indicators for Niger, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	572	794	39	126	533	7
1981	498	663	63	105	434	16
1982	369	534	111	30	258	9
1983	371	473	73	53	298	6
1984	308	341	67	89	242	10
1985	238	336	68	136	170	
1986	300	350	63	136	309	8
1987	320	375	67	136	321	8

Additional food needs to support consumption for Niger, with stock adjustment

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	120	18	90	13	203	30
1987/88	128	18	98	14	212	30
Stock adjustment						
1986/87			12	2	12	2
1987/88			6	1	6	1
Total						
1986/87			102	15	215	32
1987/88			104	15	217	31

SENEGAL

Senegal's grain imports are forecast at 445,000 tons for 1986, the lowest level since 1977. The 1985 record harvest and efforts to reduce rice imports contributed to the decline. As part of a World Bank and IMF Structural Adjustment Program, the Government has raised retail rice prices, encouraging consumers to substitute domestically produced grain. PL 480 Title I rice is being used to support the privatization of rice trade in 1986. While 1986 grain production is expected to be down from 1985, a normal weather assumption was still used. Unfavorable weather would reduce output below the current estimate of 920,000 tons.

Senegal's commercial import capacity for 1986/87 is estimated at 865,000 tons, compared with 650,000 tons in the last report. Both imports and exports will be up sharply in 1986 and 1987 because of a decline in value of the dollar against the CFA franc. The value change in CFA terms is much smaller. Other factors contributing to this are lower prices and a larger share of foreign exchange allocated to food imports. Senegal has neither status quo nor nutrition-base additional food needs.

Senegal basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	645	125	488	1,183	0	205	Wheat	6.2
1981/82	884	75	485	1,394	0	234	Rice	26.4
1982/83	737	50	532	1,294	0	211	Corn	4.5
1983/84	486	25	691	1,177	0	186	Millet	26.0
1984/85	660	25	502	1,137	0	174	Total	63.2
1985/86	1,003	50	445	1,448	0	214		
1986/87	920	50						
1987/88	949	50						

Import requirements for Senegal

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Cereal equivalent						
1986/87	920	1,455	1,478	535	558	838
1987/88	949	1,501	1,524	552	575	862

Financial indicators for Senegal, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	481	973	179	8	302	41
1981	511	1,009	90	9	421	34
1982	590	968	46	11	544	23
1983	569	880	57	12	512	26
1984	548	805	93	4	455	28
1985	526	773	211	5	315	
1986	750	1,000	98	5	648	26
1987	775	1,000	101	5	669	26

Additional food needs to support consumption for Senegal

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	865	119	0	0	0	0
1987/88	920	123	0	0	0	0

SIERRA LEONE

Late rains contributed to a shortfall in Sierra Leone's 1985 rice production. Food supplies have been tight, leading to a government decision to postpone the elimination of retail subsidies on rice. The 1986 crop is in the ground and April rains were beneficial for planting.

A conservative estimate of 295,000 tons for 1986 cereal output, including milled rice, is adopted and modest growth in root and tuber output expected. Status quo and nutrition-based estimates of cereal equivalent import requirements are below 200,000 tons for 1987. Commercial import capacity is deemed adequate to cover most of this requirement. Sierra Leone normally allocates a third of its available foreign exchange to food imports. Sierra Leone's external financial position is by no means strong, however. Devaluations have discouraged activity in the mining sector and delivery of export crops to the official marketing board were down in 1985.

Sierra Leone basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	333	0	86	419	0	123	Wheat	2.3
1981/82	314	0	126	440	0	126	Rice	38.4
1982/83	314	0	57	371	0	103	Cassava	22.6
1983/84	346	0	60	406	0	110	Total	63.3
1984/85	293	0	40	333	0	88		
1985/86	260	0	90	350	0	90		
1986/87	295	0						
1987/88	310	0						
Roots								
1980/81	630	0	0	630	0	184		
1981/82	635	0	0	635	0	181		
1982/83	640	0	0	640	0	178		
1983/84	640	0	0	640	0	174		
1984/85	640	0	0	640	0	169		
1985/86	650	0	0	650	0	167		
1986/87	675	0						
1987/88	700	0						

Import requirements for Sierra Leone

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Major cereals						
1986/87	295	460	458	165	163	259
1987/88	310	472	471	162	161	258
Roots						
1986/87	675	714	693	39	18	95
1987/88	700	733	711	33	11	90
Cereal equivalent						
1986/87	570	751	741	181	171	298
1987/88	596	771	761	175	166	295

Financial indicators for Sierra Leone, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	214	386	41	31	173	17
1981	153	282	43	16	110	29
1982	110	260	11	8	99	34
1983	107	133	10	16	97	30
1984	133	150	16	8	117	29
1985	123	136	33	11	91	
1986	150	140	22	11	130	31
1987	150	140	22	11	130	31

Additional food needs to support consumption for Sierra Leone

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	177	32	4	1	0	0
1987/88	182	32	0	0	0	0

TOGO

The agricultural season begins in April in Southern Togo and early rains have been adequate for crop development. The rains begin later in the north, so planting starts in June. Production in 1986 is forecast to decline 10 percent from the record 1985 harvest. The final outturn will depend on the weather during the rest of the rainy season which ends in October. Even though stock data are not available for Togo, 2 years of good harvests mean that stock levels are at or above normal. Togo was looking for markets for its surplus corn in early 1986, but neighboring countries also had adequate supplies of coarse grains.

Togo's commercial import capacity fell slightly from the previous report in spite of lower world prices. A small decline in international reserves, and an increase in debt service and imports contributed to the decline in foreign exchange availability. The lower import capacity and higher use contributed to the small status quo additional need in this report.

Togo basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	286	0	63	349	0	135	Wheat	3.9
1981/82	281	0	83	364	0	136	Rice	4.2
1982/83	299	0	90	389	0	141	Corn	19.3
1983/84	286	0	67	353	0	124	Millet	11.4
1984/85	315	0	50	365	0	125	Cassava	17.5
1985/86	371	0	60	431	0	143	Yams	18.0
1986/87	337	0					Total	74.3
1987/88	354	0						
Roots								
1980/81	906	0	0	906	0	349		
1981/82	899	0	0	899	0	336		
1982/83	838	0	0	838	0	304		
1983/84	769	0	0	769	0	271		
1984/85	871	0	0	871	0	297		
1985/86	900	0	0	900	0	298		
1986/87	955	0						
1987/88	990	0						

Import requirements for Togo

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	337	432	432	95	95	107
1987/88	354	445	447	91	93	104
Roots						
1986/87	955	1,003	1,119	48	164	193
1987/88	990	1,034	1,154	44	164	193
Cereal equivalent						
1986/87	677	790	830	113	153	160
1987/88	707	814	858	107	151	157

Financial indicators for Togo, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	476	524	65	78	411	3
1981	336	374	48	152	289	7
1982	303	340	38	168	264	6
1983	231	250	45	173	187	8
1984	239	236	67	203	172	10
1985	242	262	100	297	142	
1986	270	340	50	297	254	8
1987	280	350	52	297	254	8

Additional food needs to support consumption for Togo

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	102	17	10	2	50	8
1987/88	105	17	2	0	46	7

Central Africa

Central Africa's status quo additional requirements for 1986/87 are relatively low at 136,000 tons. This represents a 20-percent decline from the previous assessment. No unusual food shortages have been reported and weather has been normal. However, nutritional needs are considerably higher at 279,000 tons, more than double the status quo level.

Central Africa basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
	--------1,000 tons------			Thousand	Kilos
Major cereals					
1980/81	1,236	59	861	37,792	55
1981/82	1,241	60	829	38,757	53
1982/83	1,281	58	740	39,981	51
1983/84	1,292	51	666	41,006	49
1984/85	1,326	17	777	42,027	50
1985/86	1,373	33	705	43,198	48
1986/87	1,404	40		44,387	
1987/88	1,462	40		45,608	

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Central Africa cereal use and additional food needs

Commodity/year	Total Use		Addition al needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
	1,000 tons	1,000 tons	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	8,708	8,850	124	20	279	45
1987/88	8,948	9,090	152	24	306	48
Stock adjustment						
1986/87			12	2	12	2
1987/88			8	1	8	1
Total						
1986/87			136	22	291	46
1987/88			160	26	314	49

ANGOLA

Angola continues to endure a serious food crisis, reflecting the devastating impact of warfare. Status quo additional needs are estimated at 34,000 tons for 1986/87, with import requirements of 424,000 tons. Additional needs may be higher than calculated here, however, as commercial import capacity deteriorates due to falling export revenues. Food production has failed to improve in 1986, with many of the prime agricultural regions in the central plateau not producing. Large numbers of farmers have been displaced and are dependent on outside food supplies. Severe transportation bottlenecks constrain food aid distribution in rural areas. Another factor in the country's poor agricultural performance has been policy-related, such as overemphasis on mechanization compared with other investments in previous years. The Government is attempting to address policy concerns, by decentralizing management and providing more support for peasant farmers, who grow most of the food. Given the massive disruption from fighting, major increases in production and marketings are unlikely.

Urban areas rely almost entirely on imported food. Food aid has accounted for about 25 percent of grain imports in recent years, but Angola commercially imports large amounts of meat, dairy products, and vegetable oils. The recent decline in oil prices will reduce the country's foreign exchange earnings significantly, but part of this could be offset by increased volume. Angola's oil production in early 1986 had more than doubled since 1982. Oil export earnings, accounting for over 90 percent of the total, rose over 40 percent in 1985 to $2.5 billion. This year's earnings are expected to fall by at least one-third, while defense expenditures continue to rise.

Angola basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	380	0	343	723	0	103	Wheat	7.6
1981/82	273	0	370	643	0	90	Rice	2.7
1982/83	269	0	304	573	0	78	Corn	20.3
1983/84	298	0	285	583	0	77	Cassava	28.5
1984/85	284	0	385	669	0	86	Total	59.2
1985/86	295	0	331	626	0	79		
1986/87	296	0						
1987/88	323	0						
Roots								
1980/81	1,800	0	0	1,800	0	257		
1981/82	1,850	0	0	1,850	0	258		
1982/83	1,900	0	0	1,900	0	258		
1983/84	1,925	0	0	1,925	0	255		
1984/85	1,900	0	0	1,900	0	245		
1985/86	1,925	0	0	1,925	0	242		
1986/87	1,950	0						
1987/88	1,975	0						

Import requirements for Angola

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status Quo	Import requirements: Nutrition-based	Import requirements: Maximum absorption
	1,000 tons					
Major cereals						
1986/87	296	674	689	378	393	547
1987/88	323	691	709	368	386	542
Roots						
1986/87	1,950	2,069	2,067	119	117	329
1987/88	1,975	2,122	2,118	147	143	363
Cereal equivalent						
1986/87	1,041	1,464	1,479	424	438	604
1987/88	1,077	1,502	1,518	425	441	610

Financial indicators for Angola, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
	FINANCIAL DATA NOT AVAILABLE					

Additional food needs to support consumption for Angola

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	390	57	34	5	48	7
1987/88	401	57	24	3	40	6

CENTRAL AFRICAN REPUBLIC

Prospects are favorable for food production in the Central African Republic (CAR) in 1986 because of normal weather to date. This follows a good year in 1985 and no serious food shortages have been reported since the drought-caused problems of 1983/84. Status quo additional requirements for 1986/87 are estimated at 7,000 tons.

The CAR registered an overall balance of payments deficit in 1985, and this deficit could persist. The gains from the strong recovery of cotton production in recent years have been eroded by falling world prices. In 1985, the CAR began a standby arrangement with the IMF while the country undertakes an adjustment program, which includes efforts to increase and diversify agricultural production.

Central African Republic basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	87	0	29	116	0	50	Wheat	2.2
1981/82	101	0	32	133	0	56	Cassava	42.8
1982/83	90	0	39	129	0	53	Corn	5.3
1983/84	80	0	49	129	0	51	Millet	6.9
1984/85	95	0	35	130	0	50	Yams and	
1985/86	105	0	26	131	0	49	cocoyams	10.0
1986/87	107	0					Total	67.2
1987/88	113	0						
Roots								
1980/81	1,166	0	0	1,166	0	504		
1981/82	1,148	0	0	1,148	0	482		
1982/83	1,255	0	0	1,255	0	512		
1983/84	1,054	0	0	1,054	0	418		
1984/85	1,260	0	0	1,260	0	486		
1985/86	1,285	0	0	1,285	0	482		
1986/87	1,310	0						
1987/88	1,325	0						

Import requirements for Central African Republic

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum absorption
	1,000 tons					
Major cereals						
1986/87	107	142	125	35	18	46
1987/88	113	146	129	33	16	45
Roots						
1986/87	1,310	1,345	1,425	35	115	168
1987/88	1,325	1,384	1,463	59	138	196
Cereal equivalent						
1986/87	606	655	668	49	61	80
1987/88	618	674	686	56	68	88

Financial indicators for Central African Republic, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	183	198	2	55	182	3
1981	116	157	4	69	113	4
1982	113	154	5	46	108	7
1983	115	141	18	47	98	7
1984	115	140	12	53	103	8
1985	126	146	20	53	105	
1986	130	166	11	53	115	7
1987	135	170	11	53	118	7

Additional food needs to support consumption for Central African Republic

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	41	7	7	1	20	4
1987/88	44	7	12	2	25	4

CONGO

The Congo's import requirements for 1986/87 are estimated at 76,000 tons, with no additional needs anticipated. Imports mainly consist of wheat and smaller amounts of rice. Commercial import capacity should be sufficient to cover all requirements. The Congo is one of the wealthiest countries in Sub-Saharan Africa, ranking as the region's fifth largest petroleum producer. However, the combination of declining revenues with lower prices and rising debt service has created a financial crisis. Normal food production is anticipated during 1986, but some marketing problems may develop due to financial constraints.

During 1985, the Congo initiated its own structural adjustment program to deal with many of the problems caused by excessive spending and borrowing. Measures include budget cuts, attempts to improve management, and the reform of public enterprises, along with the reduction of the state role in agriculture. The Government is also calling for food self-sufficiency by 2000, realizing more of the country's untapped agricultural potential.

Congo basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81	
							Commodity coverage	Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	11	0	84	95	0	61	Wheat	11.4
1981/82	15	0	50	65	0	41	Cassava	46.9
1982/83	15	0	73	88	0	54	Corn	1.7
1983/84	17	0	80	97	0	57	Total	60.0
1984/85	19	0	75	94	0	54		
1985/86	20	0	70	90	0	50		
1986/87	21	0						
1987/88	22	0						
Roots								
1980/81	520	0	0	520	0	335		
1981/82	530	0	0	530	0	332		
1982/83	533	0	0	533	0	324		
1983/84	490	0	0	490	0	289		
1984/85	550	0	0	550	0	315		
1985/86	570	0	0	570	0	317		
1986/87	590	0						
1987/88	600	0						

Import requirements for Congo

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Major cereals						
1986/87	21	97	80	76	59	92
1987/88	22	100	83	78	61	95
Roots						
1986/87	590	591	683	1	93	138
1987/88	600	609	704	9	104	151
Cereal equivalent						
1986/87	256	333	353	77	97	127
1987/88	261	343	364	82	103	133

Financial indicators for Congo, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	911	545	99	86	812	3
1981	1,073	804	138	123	934	2
1982	1,113	716	180	37	934	2
1983	1,114	650	238	7	876	3
1984	1,265	618	251	4	1,014	2
1985	1,290	585	312	5	978	
1986	925	625	162	5	755	2
1987	1,100	650	193	5	898	2

Additional food needs to support consumption for Congo

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent Consumption						
1986/87	96	15	0	0	1	0
1987/88	118	17	0	0	0	0

EQUATORIAL GUINEA

Equatorial Guinea's 300,000 people rely primarily on root crops and fruit for subsistence. Cereal output is negligible. This pattern of food production is expected to remain essentially unchanged. Rainfall to date in 1986 has been satisfactory for the progress of cassava and potato crops. Cereal equivalent food import requirements of 4,000 tons represent normal imports.

Commercial import capacity is quite limited. Equatorial Guinea's major exports are wood, cocoa and coffee. Cocoa and coffee output have suffered from years of neglect. Wood exports are becoming increasingly important, but suffered from temporary export disruptions in 1985. In January 1985, Equatorial Guinea joined the Bank of Central African States, adopting the franc (CFA) as its currency. While offering significant long term advantages to the country, entry into the franc zone has involved painful adjustments, including an initial period of high inflation.

Equatorial Guinea basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos	Percent	
Major cereals								
1980/81	0	0	3	3	0	12		
1981/82	0	0	3	3	0	12		
1982/83	0	0	2	2	0	8		
1983/84	0	0	2	2	0	7		
1984/85	0	0	2	2	0	7		
1985/86	0	0	3	3	0	11		NA
1986/87	0	0						
1987/88	0	0						
Roots								
1980/81	81	0	0	81	0	324		
1981/82	84	0	0	84	0	328		
1982/83	87	0	0	87	0	332		
1983/84	88	0	0	88	0	328		
1984/85	89	0	0	89	0	324		
1985/86	90	0	0	90	0	320		
1986/87	91	0						
1987/88	92	0						

Import requirements for Equatorial Guinea

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	0	3	NA	3	NA	4
1987/88	0	3	NA	3	NA	4
Roots						
1986/87	91	94	NA	3	NA	14
1987/88	92	97	NA	5	NA	16
Cereal equivalent						
1986/87	32	36	NA	4	NA	9
1987/88	33	37	NA	4	NA	9

Financial indicators for Equatorial Guinea, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	15	33	2	5	13	0
1981	16	38	4	6	12	8
1982	14	37	3	6	11	5
1983	18	28	3	5	15	5
1984	19	30	1	5	18	3
1985	22	32	12	5	10	
1986	26	38	5	5	20	4
1987	26	38	5	5	20	4

Additional food needs to support consumption for Equatorial Guinea

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent Consumption						
1986/87	1	0	3	1	NA	NA
1987/88	1	0	4	1	NA	NA

ZAIRE

Zaire's status quo additional needs for 1986/87 are estimated at 91,000 tons, with total import requirements over 400,000 tons. Zaire has made good progress in increasing grain production in recent years, and further gains are expected in 1986. Corn production has progressed well and import needs have been reduced to very low levels. Rice imports have also been reduced over the last few years. Wheat is easily the chief food import, at about 200,000 tons per year, with very little wheat grown domestically. About one-quarter of assessed import needs consist of the grain equivalent requirements based on cassava production. But there is considerable difficulty in making accurate assessments of cassava output, and this estimate may be revised. Additional nutrition-based needs are estimated at over 220,000 tons, but nutritional problems may be worse than this would indicate because of uneven food distribution.

The major economic reform program underway since late 1983 in Zaire is starting to show some positive results and substantial donor support continues. However, the country's financial position remains difficult and the commercial import capacity estimated here appears high. Despite continued reductions in the current account deficit, balance of payments problems persist. Zaire's heavy dependence on mineral exports leaves it vulnerable to unfavorable external trends. World prices for copper and cobalt have been particularly disappointing. In early 1986, Zaire was not able to take full advantage of the price boom for coffee, its major agricultural export, because of internal problems. Zaire's debt burden is large, keeping pressure on the external account.

Zaire basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	758	59	402	1,159	0	43	Rice	3.0
1981/82	852	60	374	1,228	0	45	Corn	9.1
1982/83	907	58	322	1,236	0	44	Millet and	
1983/84	897	51	250	1,181	0	41	Sorghum	0.4
1984/85	928	17	280	1,192	0	40	Cassava	56.0
1985/86	953	33	275	1,221	0	40	Wheat	2.1
1986/87	980	40					Total	70.6
1987/88	1,004	40						
Roots								
1980/81	11,900	0	0	11,900	0	446		
1981/82	12,650	0	0	12,650	0	463		
1982/83	13,125	0	0	13,125	0	465		
1983/84	13,450	0	0	13,450	0	464		
1984/85	12,925	0	0	12,925	0	436		
1985/86	13,600	0	0	13,600	0	446		
1986/87	13,800	0						
1987/88	14,025	0						

Import requirements for Zaire

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	980	1,293	1,301	313	321	474
1987/88	1,004	1,329	1,336	325	332	490
Roots						
1986/87	13,800	14,117	14,469	317	669	766
1987/88	14,025	14,508	14,859	483	834	945
Cereal equivalent						
1986/87	5,796	6,220	6,350	423	554	695
1987/88	5,899	6,392	6,522	493	623	771

Financial indicators for Zaire, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	2,269	1,472	359	204	1,910	5
1981	1,678	1,290	191	152	1,487	7
1982	1,601	1,128	136	39	1,465	4
1983	1,686	1,114	127	102	1,559	3
1984	1,892	1,164	352	137	1,540	4
1985	1,908	1,390	732	137	1,176	
1986	1,850	1,500	213	137	1,644	4
1987	2,000	1,550	230	137	1,773	4

Additional food needs to support consumption for Zaire, with stock adjustment

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	344	55	80	13	210	34
1987/88	381	60	112	18	242	38
Stock adjustment						
1986/87			12	2	12	2
1987/88			8	1	8	1
Total						
1986/87			91	15	222	36
1987/88			120	19	250	39

East Africa

Because 1985/86 was an exceptional year for cereal output in East Africa, advance estimates suggest a smaller 1986/87 harvest. Sudan, Kenya, and Tanzania are each likely to have smaller cereal harvests. Since harvesting does not begin until later in the year, it is not possible to make conclusive crop estimates. However, weather conditions have been favorable for planting and early growth. The Food and Agriculture Organization warns of serious threats from pests, particularly locusts and grasshoppers, this year. However, with an appropriate international response, pest damage may still be controlled.

Regional status quo based estimates of cereal import requirements for 1986/87 are 2 million tons. Half this requirement is attributed to Ethiopia, where chronic food shortages are expected to continue despite an easing of drought conditions. Nutrition-based import requirements of 5.6 million tons reflect high needs, especially in Ethiopia and Kenya.

Some of the countries in the region, particularly Sudan and Tanzania, are experiencing serious foreign exchange shortages. Sudan is facing another year of sagging cotton export revenues. For others, commercial import capacity is enhanced by the recent rise in prices for coffee, one of the region's major exports. All countries will benefit from the lower expected import prices for cereals.

In light of the harvest and commercial import capacity estimates, 1986/87 status quo additional food needs for the region are estimated at $200 million, including 1.3 million tons of cereals. Most of this requirement is for Ethiopia. The availability of coarse grains has reduced the region's cereal import requirements below the levels of the last 2 years. The region will continue to face a gap between demand and supply of wheat and wheat products.

East Africa basic food data

	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
	1,000 tons			Thousand	Kilos
Major cereals					
1980/81	15,233	1,077	1,770	121,603	140
1981/82	17,013	1,027	1,665	125,707	145
1982/83	16,984	1,457	1,109	129,771	139
1983/84	15,633	1,555	1,847	133,559	138
1984/85	13,741	623	4,649	136,740	131
1985/86	19,143	1,116	2,227	142,244	148
1986/87	18,742	1,371		146,703	
1987/88	19,185	1,371		151,306	

1/ Beginning stocks used in calculated additional food needs do not include, for some countries, exceptional carryover stocks of food aid. See individual country reports.

East Africa cereal use, additional food needs to support consumption, and stock adjustment

Commodity/year	Total Use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
	1,000 tons	1,000 tons	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	28,127	31,883	1,306	177	4,886	743
1987/88	29,001	32,844	1,377	197	5,074	763
Stock adjustment						
1986/87			352	53	352	53
1987/88			175	21	175	21
Total						
1986/87			1,537	217	5,118	783
1987/88			1,427	205	5,124	771
Maximum absorbable						
Cereal equivalent						
1986/87			1,537	217	3,560	559
1987/88			1,427	205	3,547	553

BURUNDI

Burundi's status quo additional needs are estimated at 15,000 tons for 1986/87, with total import requirements at 44,000 tons. Rainfall in Burundi is normally reliable and no exceptional shortfalls have occurred recently. The outlook for 1986 production is favorable. Nutritional needs are much higher, although it is difficult to make precise assessments.

Export earnings from coffee increased in 1985, resulting in record total earnings. At the same time, imports are being restricted. Exports for 1986 are expected to rise again given current prices for coffee. With coffee comprising about 85 percent of exports, however, Burundi is highly vulnerable to a downturn in prices.

Burundi basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	312	0	16	328	0	81	Corn	11.0
1981/82	326	0	17	343	0	82	Sorghum	11.3
1982/83	314	0	16	330	0	77	Millet	0.8
1983/84	323	0	25	348	0	79	Cassava	15.8
1984/85	259	0	34	293	0	64	Sweet potato	19.2
1985/86	321	0	25	346	0	74	Wheat	1.5
1986/87	333	0					Total	59.6
1987/88	342	0						
Roots								
1980/81	870	0	0	870	0	214		
1981/82	900	0	0	900	0	215		
1982/83	900	0	0	900	0	210		
1983/84	1,002	0	0	1,002	0	227		
1984/85	880	0	0	880	0	194		
1985/86	1,000	0	0	1,000	0	214		
1986/87	1,035	0						
1987/88	1,055	0						

Import requirements for Burundi

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	333	375	399	42	66	63
1987/88	342	385	410	43	68	65
Roots						
1986/87	1,035	1,040	1,955	5	920	364
1987/88	1,055	1,070	2,008	15	953	384
Cereal equivalent						
1986/87	619	663	931	44	312	169
1987/88	634	682	956	48	323	177

Financial indicators for Burundi, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	65	146	6	95	59	16
1981	71	140	5	61	66	13
1982	88	186	6	29	82	16
1983	99	155	8	27	92	12
1984	102	166	17	20	85	16
1985	115	176	25	29	90	
1986	130	180	13	29	119	15
1987	130	175	13	29	119	15

Additional food needs to support consumption for Burundi, and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	29	8	15	4	283	81
1987/88	30	8	18	5	293	81
Maximum absorbable						
Cereal equivalent						
1986/87			15	4	140	40
1987/88			18	5	147	41

DJIBOUTI

Djibouti is a low-income country that is highly dependent on food imports. Its population of 300,000 is located primarily in the city of Djibouti. The economy consists of two sectors, a large service economy supporting the port of Djibouti and a French military enclave, and a traditional nomadic population.

Crop production, which is negligible, is limited to only 50 to 200 hectares of garden production. Rangeland conditions for livestock benefited from normal to above normal rainfall in most of the country during April and May. As a result, no exceptional food import requirements are expected in 1986/87.

Foreign exchange earnings have been bolstered by the use of Port Djibouti for supplies of food aid to Ethiopia. Djibouti's foreign exchange position is considered adequate for it to meet most of its cereal import requirements through commercial transactions. Additional food needs for 1986/87 are estimated at 5,000 tons.

Djibouti basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	0	5	37	40	0	143		
1981/82	0	2	38	40	0	136		
1982/83	0	0	45	45	0	147		
1983/84	0	0	67	67	0	212		NA
1984/85	0	0	62	62	0	215		
1985/86	0	0	55	55	0	180		
1986/87	0	0						
1987/88	0	0						

Import requirements for Djibouti

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereal equivalent						
1986/87	0	47	NA	47	NA	72
1987/88	0	48	NA	48	NA	73

Financial indicators for Djibouti, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	177	226	3	66	174	11
1981	185	225	3	80	182	9
1982	167	226	3	80	164	10
1983	158	225	4	75	154	9
1984	165	240	3	75	162	10
1985	173	237	5	75	168	
1986	175	240	4	75	168	10
1987	175	240	4	75	168	10

Additional food needs to support consumption for Djibouti

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	42	9	5	1	NA	NA
1987/88	43	9	5	1	NA	NA

ETHIOPIA

Ethiopia's 1986 belg, or secondary season, rains were much improved over 1984 and 1985. As a result, rangeland conditions improved in much of the country and belg season output of grains--normally 5 percent of total output--will be at or above average. Generally moist conditions favored planting for the 1986 main season crop, to be harvested between October and December. However, large areas in eastern and southwestern Ethiopia experienced dry conditions between February and June. This is expected to adversely affect area planted and crop yields. There is a threat of serious preharvest crop losses from locusts, grasshoppers, and army worms. Pending midseason crop assessments, 1986 cereal production is conservatively estimated at 5.75 million tons, nearly 10 percent above the below-average 1985 harvest.

Status quo based estimates of cereal import requirements for 1986/87 are 1.1 million tons. Commercial import capacity is estimated at 150,000 tons. However, above-average commercial imports and increases in coffee export revenues in 1986 suggest that commercial imports will be higher.

The corresponding additional food needs for 1986/87 are estimated at 900,000 tons. At the end of May, a backlog of 250,000 tons of bulk freight was reported at the port of Assab, with offtake below 100,000 per month. Based on estimates of expected deliveries, this means 1986/87 beginning stocks may be as high as 450,000 tons, consisting primarily of food aid. Assuming a drawdown of these stocks during 1987, estimates of food import requirements should be adjusted accordingly. Nutrition-based food requirements remain well above status quo based estimates, reflecting Ethiopia's chronically poor nutritional status.

Ethiopia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	5,559	695	226	5,847	213	155	Wheat	9.1
1981/82	5,324	420	303	5,745	172	147	Corn	9.8
1982/83	6,649	130	335	6,484	160	161	Sorghum	15.2
1983/84	5,749	470	568	6,515	187	159	Millet	2.0
1984/85	4,790	85	1,480	5,871	176	143	Barley	16.1
1985/86	5,245	308	1,125	6,106	122	142	Teff	15.5
1986/87	5,750	450					Total	67.7
1987/88	6,060	450						

Import requirements for Ethiopia

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereal equivalent						
1986/87	5,750	6,806	8,720	1,056	2,970	1,917
1987/88	6,060	6,990	8,970	930	2,910	1,808

Financial indicators for Ethiopia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	592	887	43	118	549	9
1981	607	1,015	55	179	553	6
1982	675	1,022	68	107	607	4
1983	743	1,182	84	165	659	4
1984	906	1,381	62	150	844	3
1985	915	1,303	120	97	795	
1986	880	1,375	82	97	749	4
1987	830	1,450	77	97	696	4

Additional food needs to support consumption for Ethiopia, with stock adjustment, and as constrained my maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	150	17	906	100	2,820	312
1987/88	143	15	787	85	2,767	297
Stock adjustment						
1986/87			42	5	42	5
1987/88			13	1	13	1
Total						
1986/87			947	105	2,861	316
1987/88			800	86	2,780	299
Maximum absorbable						
Cereal equivalent						
1986/87			947	105	1,767	195
1987/88			800	86	1,664	179

KENYA

The start of Kenya's rainy season was delayed 2-3 weeks, and rainfall was less than the high level of 1985, but moisture was adequate into June. A normal increase in rainfall during late June and early July will be needed to realize satisfactory yields in 1986.

The 1986/87 corn crop is estimated to be down about 10 percent from the 1985/86 record of 2.65 million tons, of which small amounts are being exported. While a good wheat crop is expected, stocks are relatively low and consumption is up to about 500,000 tons. Wheat accounts for most of the status quo cereal import requirements of 253,000 tons, but rice imports are also required. Inadequate increases in root crop production raise import requirements to 292,000 tons, cereal equivalent. Because average caloric consumption is inadequate, nutrition-based needs are higher.

While higher coffee prices in early 1986 are expected to raise Kenya's export earnings, debt service costs have risen. International reserves have stopped their rapid increases of 1983 and 1984. Commercial import capacity is down to $36 million for 1986/87, compared with $45 million in the May report, but lower unit values of imports for 1986/87 will allow for commercial imports of 190,000 tons. This will result in additional status quo food needs of 102,000 tons.

Kenya basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	2,330	101	494	2,626	68	164	Wheat	5.9
1981/82	2,769	231	340	2,656	82	160	Rice	0.9
1982/83	2,786	602	96	2,649	91	154	Corn	40.2
1983/84	2,508	744	77	2,765	75	153	Sorghum	3.5
1984/85	1,957	489	889	2,668	72	142	Millet	2.2
1985/86	3,133	595	2	3,017	89	154	Cassava	5.6
1986/87	2,909	624					Potatoes	1.3
1987/88	2,897	624					Sweet potat	2.2
							Total	61.8
Roots								
1980/81	1,181	0	0	1,181	0	72		
1981/82	1,363	0	0	1,363	0	80		
1982/83	1,544	0	0	1,544	0	87		
1983/84	1,474	0	0	1,474	0	79		
1984/85	1,430	0	0	1,430	0	74		
1985/86	1,480	0	0	1,480	0	73		
1986/87	1,555	0						
1987/88	1,600	0						

Import requirements for Kenya

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	2,909	3,162	3,819	253	910	1,353
1987/88	2,897	3,292	3,949	395	1,052	1,531
Roots						
1986/87	1,555	1,675	1,922	120	367	264
1987/88	1,600	1,744	1,997	144	397	294
Cereal equivalent						
1986/87	3,453	3,745	4,501	292	1,048	1,427
1987/88	3,457	3,899	4,658	443	1,201	1,614

Financial indicators for Kenya, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	1,261	2,345	249	492	1,012	14
1981	1,072	1,881	287	231	785	7
1982	934	1,495	326	212	608	14
1983	925	1,204	305	376	620	9
1984	1,034	1,336	348	390	686	12
1985	957	1,400	402	391	555	
1986	1,300	1,500	417	391	896	12
1987	1,200	1,500	385	391	828	12

Additional food needs to support consumption for Kenya, and with stock adjustment

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Major cereals						
Consumption						
1986/87	190	36	102	19	858	161
1987/88	180	33	262	48	1,021	186
Stock adjustment						
1986/87			190	36	190	36
1987/88			32	6	32	6
Total						
1986/87			292	55	1,048	197
1987/88			295	54	1,053	192

RWANDA

Rwanda's status quo additional needs for 1986/86 are estimated at 21,000 tons. Most of the import need consists of wheat. Weather has been favorable for production in the last 2 years, and no unusual problems have been reported. Additional nutrition-based needs are large, however, estimated at over 190,000 tons. Given the subsistence orientation of most food production in Rwanda, there are considerable uncertainties about actual consumption levels. The diet is heavily dependent upon roots and tubers, with a large amount of calories derived from banana beer.

Export earnings are expected to increase for Rwanda in 1986 because of higher prices for its arabica coffee. Problems continue in transporting the coffee through neighboring countries and some of the coffee is airlifted to Kenya ports.

Rwanda basic food data

Commodity/year	Actual or forecast production	Begin-ning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	267	0	12	279	0	54	Corn	5.7
1981/82	281	0	16	297	0	55	Sorghum	3.5
1982/83	310	0	16	326	0	59	Cassava	16.9
1983/84	302	0	23	325	0	56	Sweet potat	21.1
1984/85	233	0	43	276	0	46	Wheat	0.6
1985/86	323	0	26	349	0	56	Plantains	9.7
1986/87	342	0					Total	57.6
1987/88	356	0						
Roots								
1980/81	3,476	0	0	3,476	0	673		
1981/82	3,815	0	0	3,815	0	712		
1982/83	3,998	0	0	3,998	0	718		
1983/84	3,787	0	0	3,787	0	652		
1984/85	3,660	0	0	3,660	0	608		
1985/86	3,900	0	0	3,900	0	624		
1986/87	4,220	0						
1987/88	4,315	0						

Import requirements for Rwanda

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	342	359	357	17	15	37
1987/88	356	372	371	16	15	37
Roots						
1986/87	4,220	4,313	4,773	93	553	432
1987/88	4,315	4,474	4,916	159	601	510
Cereal equivalent						
1986/87	1,650	1,687	1,859	37	209	165
1987/88	1,694	1,750	1,920	56	226	189

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Financial indicators for Rwanda, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	134	196	2	187	132	2
1981	113	207	3	173	111	11
1982	109	214	5	128	103	11
1983	124	198	4	111	120	11
1984	143	198	6	107	137	8
1985	128	212	10	113	118	
1986	150	200	6	113	146	10
1987	145	205	5	113	138	10

Additional food needs to support consumption for Rwanda, and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Major cereals						
Consumption						
1986/87	16	5	21	7	194	60
1987/88	15	5	41	12	211	64
Maximum absorbable						
Cereal equivalent						
1986/87			21	7	149	46
1987/88			41	12	174	52

SOMALIA

Timely rainfall in April provided a favorable start to the main (gu) growing season. Conditions became drier in May, but rainfall picked up in June, preventing damage to crop and rangeland development. Estimates of 1986 grain output are approximately the same as 1985, reflecting sustained improvement in food crop production during the 1980's.

Somalia has become essentially self-sufficient in coarse grains, but will continue to import wheat and wheat products. A large refugee population boosts Somalia's food import requirements.

Somalia allocates nearly a third of available foreign exchange to food imports. But, revenues from cattle exports have been down and debt service obligations are high. Food aid pledges for 1986 include 150,000 tons of cereals. Status quo based additional grain needs for 1986/87 are an estimated 122,000 tons, while nutrition-based estimates are 428,000 tons.

Somalia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	264	0	422	675	11	112	Wheat	9.9
1981/82	370	0	392	750	12	114	Rice	9.2
1982/83	399	0	250	637	12	93	Corn	17.2
1983/84	358	0	307	653	12	93	Sorghum	14.3
1984/85	475	0	309	772	12	106	Milk	12.8
1985/86	554	0	225	767	12	103	Total	63.3
1986/87	548	0						
1987/88	553	0						
Milk								
1980/81	539	0	13	552	0	90		
1981/82	543	0	14	557	0	83		
1982/83	547	0	11	558	0	80		
1983/84	529	0	14	543	0	76		
1984/85	530	0	14	544	0	74		
1985/86	540	0	20	560	0	74		
1986/87	560	0						
1987/88	575	0						

Import requirements for Somalia

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	548	824	1,115	276	567	341
1987/88	553	829	1,147	276	594	363
Milk						
1986/87	560	563	622	3	62	37
1987/88	575	578	639	3	64	38

Financial indicators for Somalia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	204	541	9	15	195	17
1981	255	520	47	31	208	32
1982	222	623	19	7	203	16
1983	179	574	25	9	154	32
1984	114	536	27	1	87	38
1985	157	500	100	6	57	
1986	180	525	29	6	152	29
1987	203	551	33	6	171	29

Additional food needs to support consumption for Somalia, and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Major cereals						
Consumption						
1986/87	139	24	122	21	428	74
1987/88	161	27	96	16	433	73
Milk						
1986/87	4	8	0	0	58	107
1987/88	5	9	0	0	59	109
Total						
1986/87		32		21		181
1987/88		36		16		182
Maximum absorbable						
Cereal equivalent						
1986/87			122	21	203	35
1987/88			96	16	202	34
Milk						
1986/87			0	0	32	59
1987/88			0	0	33	61
Total						
1986/87				21		94
1987/88				16		95

SUDAN

Despite a miraculous recovery in national grain production in late 1985, food supplies in western and southern Sudan are inadequate. Food assistance to these regions in 1986 includes 200,000 tons of externally-financed, locally purchased sorghum. But, serious gaps in food supplies for Darfur and Kordofan merit further assistance to prevent starvation between September and November, prior to the 1986 harvest. Civil war continues to hamper food production and food aid delivery in southern Sudan.

Grain output is not likely to reach the record levels of 1985 during the forthcoming harvest, since stocks are substantial and prices have fallen. Some farmers are likely to shift to production of oilseeds, particularly peanuts, output of which has declined during the past few years. An international effort is being mounted to counteract what is potentially the worst locust infestation in East Africa in 50 years.

Assuming rainfall remains adequate and locusts are controlled, Sudan should have no aggregate grain import requirements for 1986/87. However, localized food shortages are likely to persist in western and southern Sudan. In addition, Sudan will continue to import wheat and wheat flour. The estimated wheat production shortfall is 660,000 tons. Should an emergency situation develop, Sudan's chronic foreign exchange shortage will make it difficult for the country to sustain historical levels of commercial imports.

Sudan basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	2,816	190	146	2,688	210	152	Wheat	8.0
1981/82	3,981	254	175	3,452	318	192	Rice	0.4
1982/83	2,453	640	182	2,780	198	146	Corn	0.8
1983/84	2,327	297	451	2,863	197	146	Sorghum	32.0
1984/85	1,392	15	1,610	2,777	90	133	Millet	9.6
1985/86	4,667	150	565	5,086	117	226	Peanuts	12.1
1986/87	4,097	179					Total	62.9
1987/88	4,097	179						
Peanuts								
1980/81	707	50	(41)	706	0	37		
1981/82	838	10	(100)	698	0	35		
1982/83	492	50	(70)	442	0	22		
1983/84	413	30	(45)	388	0	18		
1984/85	386	10	0	386	0	18		
1985/86	345	10	0	345	0	15		
1986/87	430	10						
1987/88	450	10						

Import requirements for Sudan

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Major cereals						
1986/87	4,097	3,763	3,991	(334)	(106)	1,723
1987/88	4,097	3,876	4,096	(221)	(1)	1,884
Peanuts						
1986/87	430	667	601	237	171	(0)
1987/88	450	687	623	237	173	0
Cereal equivalent						
1986/87	4,527	4,430	4,592	(97)	65	1,723
1987/88	4,547	4,563	4,719	16	172	1,884

Financial indicators for Sudan, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	689	1,127	104	49	585	8
1981	793	1,634	145	17	648	13
1982	401	750	115	21	286	33
1983	514	703	87	17	427	19
1984	519	546	107	17	412	23
1985	500	1,300	808	12	(308)	
1986	525	1,150	111	12	403	25
1987	550	1,200	116	12	422	25

Additional food needs to support consumption for Sudan

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	434	46	0	0	0	0
1987/88	467	48	0	0	0	0

TANZANIA

Tanzania had an excellent harvest in 1985 with production of each major cereal up from 1984, and imports during 1985/86 were reduced. Rural market prices for corn after the 1985 harvest were down in August by 20 percent compared with 1984, but were still above official prices. Cereal purchases by the National Milling Corporation rose sharply in spite of transportation weaknesses, and stock levels have improved.

For 1986/87, another good cereal crop is expected and the production estimate remains at 3.2 million tons, as in the May report. Cereal import requirements for 1986/87 are up slightly from 1985/86. Cereal equivalent nutrition-based requirements are 182,000 tons.

Tanzania's foreign exchange position weakened again in 1985. Exports dropped for the fourth consecutive year and at $293 million were only 10 percent above debt service due, which rose sharply, to $267 million.

With an expected increase in coffee exports, plus higher prices, Tanzania's export earnings should recover in 1986. An expected agreement with the IMF is likely to result in reduced debt service due in 1986. With an increased use of foreign exchange, from 11 percent to 15 percent for commercial agricultural imports, commercial import capacity is estimated at $23 million. Therefore, additional grain equivalent needs for 1986/87 are estimated at 133,000 tons.

Tanzania basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	2,641	86	387	2,924	70	161	Wheat	1.5
1981/82	2,820	120	364	3,149	70	168	Rice	6.5
1982/83	2,794	85	164	2,934	65	152	Corn	33.1
1983/84	2,664	44	355	2,971	58	149	Sorghum	3.5
1984/85	3,070	34	263	3,244	60	157	Millet	3.0
1985/86	3,345	63	234	3,452	72	162	Cassava	22.2
1986/87	3,213	118					Total	69.7
1987/88	3,300	118						
Roots								
1980/81	4,600	0	0	4,600	0	248		
1981/82	4,800	0	0	4,800	0	251		
1982/83	5,000	0	0	5,000	0	254		
1983/84	5,400	0	0	5,400	0	265		
1984/85	5,600	0	0	5,600	0	266		
1985/86	5,700	0	0	5,700	0	263		
1986/87	5,870	0						
1987/88	6,000	0						

Import requirements for Tanzania

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Major cereals						
1986/87	3,213	3,473	3,510	260	297	608
1987/88	3,300	3,584	3,618	284	318	641
Roots						
1986/87	5,870	5,866	5,510	(4)	(360)	96
1987/88	6,000	6,053	5,677	53	(323)	156
Cereal equivalent						
1986/87	5,091	5,351	5,273	259	182	529
1987/88	5,220	5,521	5,435	301	215	578

Financial indicators for Tanzania, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	508	1,069	76	20	432	19
1981	688	1,038	74	19	615	5
1982	413	1,000	63	5	350	14
1983	379	735	65	19	314	15
1984	369	760	71	27	298	16
1985	293	962	267	12	26	
1986	350	1,000	55	12	289	15
1987	360	1,000	56	12	297	15

Additional food needs to support consumption for Tanzania, with stock adjustment

Commidity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	126	23	133	24	56	10
1987/88	133	24	168	30	81	14
Stock adjustment						
1986/87			0	0	0	0
1987/88			4	1	4	1
Total						
1986/87			133	24	56	10
1987/88			172	31	85	15

UGANDA

Uganda's total food production probably increased for the fifth consecutive year in 1985, but on a per capita basis it continued to lag the performance of 1976-78. Given generally adequate rainfall again in 1986, coarse grain production is estimated at 1.55 million tons, approximately the same as during 1985. On a status quo basis, the country is again expected to be self-sufficient in coarse grains during 1986/87, but small imports of wheat and rice will be required. On a nutrition basis, consumption is estimated to be considerably below requirements in Uganda with nutrition-based food needs at 247,000 tons, constrained to 197,000 tons by absorptive capacity.

Given an expected increase in coffee exports and export prices in 1986, foreign exchange availability should improve over the very low level of 1985. However, Uganda's financial condition remains very weak in relation to its foreign exchange needs. Commercial import capacity is 49,000 tons.

Uganda basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	1,044	0	30	1,015	59	84	Corn	11.6
1981/82	1,142	0	20	1,102	60	89	Millet	11.4
1982/83	1,279	0	5	1,209	75	96	Sorghum	7.5
1983/84	1,402	0	(26)	1,296	80	99	Cassava	11.9
1984/85	1,565	0	(41)	1,434	90	107	Bananas	19.0
1985/86	1,555	0	(30)	1,444	81	104	Sweet potat	5.1
1986/87	1,550	0					Dry beans	8.1
1987/88	1,580	0					Potatoes	1.0
Roots							Total	75.8
1980/81	7,217	0	0	7,217	0	565		
1981/82	7,403	0	0	7,403	0	566		
1982/83	7,720	0	0	7,720	0	574		
1983/84	7,890	0	0	7,890	0	571		
1984/85	8,025	0	0	8,025	0	564		
1985/86	8,230	0	0	8,230	0	560		
1986/87	8,592	0						
1987/88	8,860	0						
Pulses								
1980/81	186	0	4	190	0	15		
1981/82	293	0	0	293	0	22		
1982/83	352	0	0	352	0	26		
1983/84	360	0	0	360	0	26		
1984/85	360	0	(5)	355	0	25		
1985/86	372	0	(5)	367	0	25		
1986/87	360	0						
1987/88	370	0						

Import requirements for Uganda

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Major cereals						
1986/87	1,550	1,537	1,852	(13)	302	333
1987/88	1,580	1,585	1,904	5	324	362
Roots						
1986/87	8,592	8,593	8,664	1	72	111
1987/88	8,860	8,862	8,931	2	71	115
Cereal equivalent						
1986/87	4,595	4,574	4,891	(21)	296	246
1987/88	4,724	4,717	5,039	(6)	315	269
Pulses						
1986/87	360	372	385	12	25	37
1987/88	370	384	397	14	27	39

Financial indicators for Uganda, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	319	318	22	17	297	3
1981	229	278	62	10	167	10
1982	349	427	65	15	284	6
1983	372	428	82	5	290	3
1984	399	371	86	4	313	5
1985	376	420	108	4	268	
1986	430	470	96	4	330	5
1987	400	520	89	4	306	5

Additional food needs to support consumption for Uganda, and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	49	9	0	0	247	45
1987/88	46	8	0	0	268	47
Pulses						
1986/87	1	0	0	0	24	10
1987/88	1	0	0	0	26	11
Total						
1986/87		9		0		55
1987/88		9		0		58
Maximum absorbable						
Cereal equivalent						
1986/87			0	0	197	36
1987/88			0	0	222	39
Pulses						
1986/87			0	0	24	10
1987/88			0	0	26	11
Total						
1986/87				0		45
1987/88				0		50

1/ Surplus pulse import capacity offsets some cereal needs.

Southern Africa

Rainfall was generally favorable for food production in Southern Africa during the recent growing season. Total grain production for 1986 is estimated to have fallen only 6 percent from the previous year's record high. The exception to this pattern was Botswana, where drought persisted for a fifth consecutive year. However, Botswana is a relatively small grain producer. It has been able to avoid major hunger problems by procuring sufficient imports and distributing supplies effectively. Despite reasonably good weather in most of the country, food production in Mozambique has remained low because of other factors. Civil strife has been the primary problem and a major food emergency will continue there. Exceptional measures are required to move food in some parts of the country.

Southern Africa's additional needs for 1986/87 are estimated at 574,000 tons. This is down about 15 percent from the previous estimate. Mozambique accounts for nearly all of this need, having the second highest requirements in Sub-Saharan Africa after Ethiopia. There is a substantial surplus of coarse grains available for export in Zimbabwe and Malawi. Because of difficulties in finding markets at desired prices, large carryover stocks of coarse grains are expected to remain at the end of 1986/87.

Southern Africa basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
	1,000 tons			Thousand	Kilos
Major cereals					
1980/81	6,271	302	1,658	44,064	180
1981/82	7,885	317	1,240	45,326	178
1982/83	6,605	1,369	953	46,650	163
1983/84	5,560	1,321	1,194	48,082	161
1984/85	6,214	327	1,541	49,432	151
1985/86	8,382	614	1,049	50,925	166
1986/87	7,881	1,606		52,392	
1987/88	8,144	1,606		53,903	

Southern Africa cereal use, additional food needs to support consumption, and stock adjustment

Commodity/year	Total use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
	1,000 tons	1,000 tons	1,000 tons	Million $	1,000 tons	Million$
Cereal equivalent						
Consumption						
1986/87	9,974	11,621	574	82	1,771	249
1987/88	10,257	11,957	496	70	1,687	233
Stock adjustment						
1986/87			(15)	(4)	(15)	(4)
1987/88			40	5	40	5
Total						
1986/87			574	82	1,916	267
1987/88			496	70	1,692	233
Maximum absorbable						
Cereal equivalent						
1986/87			574	82	1,165	162
1987/88			496	70	946	131

1/ Stock adjustments are offset by negative needs for consumption.

BOTSWANA

Botswana has not realized a good cereal harvest since 1981, due to droughts. In 1986, Botswana's eastern cropping area received only 49 percent of normal rainfall during the main part of the growing season. Generally favorable rainfall in April came too late for cereal crops. Cereal production for 1986/87 is estimated at 23,000 tons and status quo cereal import requirements at 165,000 tons. These are slightly reduced from the May report.

Botswana's agriculture, including livestock, is probably the most severely affected by the recent droughts in Southern Africa. The cattle herd been reduced as has beef production and exports.

While Botswana's real GDP grew by about 11 percent in 1985, the agricultural sector declined again, to only 4.5 percent of total GDP. Exports increased with diamonds accounting for 77 percent of export earnings. With a positive trade balance and relatively low debt service, Botswana's commercial import capacity has increased and currently covers estimated import requirements for cereals, milk, and pulses.

Botswana basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	41	0	105	140	6	162	Wheat	10.3
1981/82	55	0	107	158	4	173	Corn	28.8
1982/83	20	0	152	168	4	178	Sorghum	9.4
1983/84	13	0	189	197	5	202	Pulses	7.8
1984/85	8	0	155	156	7	158	Cow milk	8.2
1985/86	18	0	167	180	5	173	Total	64.6
1986/87	23	0						
1987/88	29	0						
Pulses								
1980/81	18	0	(2)	16	0	18		
1981/82	20	0	(2)	18	0	19		
1982/83	16	0	0	16	0	17		
1983/84	15	0	0	15	0	15		
1984/85	10	0	2	12	0	12		
1985/86	12	0	2	14	0	13		
1986/87	13	0						
1987/88	15	0						
Milk								
1980/81	91	0	31	122	0	135		
1981/82	91	0	33	124	0	132		
1982/83	95	0	29	124	0	128		
1983/84	95	0	27	122	0	122		
1984/85	96	0	20	116	0	112		
1985/86	97	0	28	125	0	117		
1986/87	97	0						
1987/88	99	0						

Import requirements for Botswana

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereal equivalent						
1986/87	23	188	157	165	134	200
1987/88	29	194	163	165	134	201
Pulses						
1986/87	13	16	23	3	10	8
1987/88	15	16	24	1	9	7
Milk						
1986/87	97	101	101	4	4	5
1987/88	99	103	103	4	4	5

Financial indicators for Botswana, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	545	600	13	344	532	3
1981	401	685	9	253	392	7
1982	461	575	13	293	448	7
1983	640	609	24	396	616	4
1984	674	555	33	474	641	5
1985	727	568	48	783	679	
1986	780	625	27	783	1,009	6
1987	835	710	29	783	990	6

Additional food aid needs to support consumption for Botswana

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	156	31	0	0	0	0
1987/88	157	30	0	0	0	0
Pulses						
1986/87	1	1	0	0	0	0
1987/88	1	1	0	0	0	0
Milk						
1986/87	18	17	0	0	0	0
1987/88	18	17	0	0	0	0
Total						
1986/87		49		0		0
1987/88		48		0		0

COMOROS

Production of grains, cassava, and bananas is expected to be normal in 1986/87. Cereal equivalent import requirements are estimated at 33,000 tons on a status quo basis. Nutrition requirements are higher. Actual grain imports in 1985/86 were 32,000 tons.

The Comoros Islands rely on the export of ylang-ylang (used in perfume), cinnamon, vanilla, and cloves for foreign exchange. The agricultural prospects of the islands are not bright and they are subject to frequent hurricanes that devastate staples such as bananas and rice. Commercial import capacity is 25,000 tons for 1986/87, leaving additional status quo needs of 8,000 tons.

Comoros basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	3	0	18	21	0	52	Rice	32.2
1981/82	3	0	30	33	0	79	Cassava	29.9
1982/83	3	0	29	32	0	74	Bananas	6.2
1983/84	3	0	34	37	0	84	Total	68.3
1984/85	3	0	31	34	0	75		
1985/86	3	0	32	35	0	75		
1986/87	3	0						
1987/88	3	0						
Roots								
1980/81	68	0	0	68	0	167		
1981/82	80	0	0	80	0	191		
1982/83	70	0	0	70	0	163		
1983/84	75	0	0	75	0	169		
1984/85	73	0	0	73	0	160		
1985/86	76	0	0	76	0	162		
1986/87	78	0						
1987/88	80	0						

Import requirements for Comoros

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	3	36	37	33	34	37
1987/88	3	37	38	34	35	39
Roots						
1986/87	78	77	159	(1)	81	14
1987/88	80	79	164	(1)	84	15
Cereal equivalent						
1986/87	25	58	93	33	67	39
1987/88	26	60	95	34	69	40

Financial indicators for Comoros, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	7	12	0	4	7	68
1981	12	16	1	6	12	41
1982	15	16	1	7	14	47
1983	9	17	2	5	7	57
1984	8	18	3	5	5	129
1985	8	19	4	5	5	
1986	8	20	1	5	6	78
1987	9	21	1	5	6	78

Additional food needs to support consumption for Comoros, and as constrained by maximum absorbable imports

Commodity/year	Commerical import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	25	4	8	1	42	7
1987/88	28	4	6	1	41	6
Maximum absorbable						
Cereal equivalent						
1986/87			8	1	14	2
1987/88			6	1	12	2

LESOTHO

Lesotho's 1986 cereal production dropped an estimated 20 percent to 134,000 tons due to late and poorly distributed rainfall and early frost. An FAO crop assessment mission visited the country in May and reported that corn production dropped nearly 30 percent from 1985, with very low yields indicated.

With status quo import requirement estimated at 196,000 tons for 1986/87, additional cereal food needs are 26,000 tons. Nutrition-based needs are 65,000 tons.

Lesotho's financial position is not expected to improve given the country's high dependence on the slow-growing economy of South Africa. Foreign exchange available has dropped and the commercial import capacity for 1986/87 fell to $21 million.

Lesotho basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	193	0	179	348	24	278	Wheat	22.4
1981/82	195	0	128	304	19	236	Corn	42.7
1982/83	123	0	169	273	19	208	Sorghum	11.4
1983/84	122	0	185	288	19	213	Total	76.6
1984/85	140	0	179	300	19	216		
1985/86	165	0	157	303	19	213		
1986/87	134	0						
1987/88	164	0						

Import requirements for Lesotho

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereal equivalent						
1986/87	134	330	369	196	235	355
1987/88	164	338	382	174	218	338

Financial indicators for Lesotho, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	360	479	5	50	355	7
1981	382	513	4	43	378	8
1982	420	504	9	48	411	8
1983	468	549	21	67	447	7
1984	413	474	21	49	392	8
1985	360	480	18	44	342	
1986	372	480	12	44	354	8
1987	379	530	12	44	356	8

Additional food needs to support consumption for Lesotho

Commodity/year	Commerical import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	170	21	26	3	65	8
1987/88	176	21	0	0	42	5

MADAGASCAR

Production of rice, the staple crop, has stagnated in recent years at about 1.5 million tons. Agricultural policy reforms, begun in the early 1980's, have come primarily in the area of rice pricing and marketing. Since 1983, the producer floor price was increased 30 percent. In 1985, the ceiling in consumer prices was removed entirely. These factors should provide an incentive to increase production in the coming years. In accordance with IMF regulations, rice imports have remained low--about 105,000 tons in 1985.

Status quo additional food needs for 1986/87 are zero, versus 102,000 tons estimated in the May assessment. This is primarily due to increased commercial import capacity as a result of lower commodity prices. There continue to be no nutrition-based needs.

Madagascar basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	1,477	0	266	1,743	0	202	Wheat	1.9
1981/82	1,408	0	413	1,821	0	205	Rice	55.7
1982/83	1,460	0	231	1,691	0	185	Corn	4.0
1983/84	1,506	0	142	1,648	0	175	Total	61.6
1984/85	1,505	0	159	1,664	0	172		
1985/86	1,529	0	150	1,679	0	169		
1986/87	1,535	0						
1987/88	1,548	0						

Import requirements for Madagascar

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Cereal equivalent						
1986/87	1,535	1,909	1,770	374	235	650
1987/88	1,548	1,963	1,815	415	267	699

Financial indicators for Madagascar, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	436	764	59	9	377	11
1981	332	511	38	27	294	30
1982	333	450	79	20	254	37
1983	307	390	86	29	221	20
1984	330	355	117	59	213	44
1985	280	336	130	62	150	
1986	320	350	79	62	264	34
1987	340	360	84	62	278	34

Additional food aid needs to support consumption for Madagascar

Commodity/year	Commerical import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	432	74	0	0	0	0
1987/88	467	78	0	0	0	0

MALAWI

Weather conditions were again favorable for Malawi's cereal crops in 1986 but less so than in 1985, causing 1986 production to decline slightly. A FAO field visit report indicates that exportable surplus of white corn will again be available during 1986/87. With wheat production almost nil, import requirements for wheat continue to grow.

The status quo import requirements, calculated at 72,000 tons, are considered high due to decreases in per capita corn consumption. Consumption of corn during 1986/87 will apparently be lower than estimated, thus allowing for corn exports.

Malawi's positive trade balance deteriorated in 1985. The country continues to suffer from unreliable rail outlets, and high costs in getting exports to ports. It is attempting to increase its use of the port of Dar es Salaam, Tanzania. Foreign exchange available for imports has been reduced from that in the May report and Malawi's commercial import capacity for 1986/87 is very low at 36,000 tons. Additional status quo food needs are estimated at 35,000 tons for 1986/87, and on a nutrition basis, they are considerably higher.

Malawi basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	1,165	0	86	1,211	40	208	Corn	64.7
1981/82	1,245	0	50	1,245	50	209	Wheat	0.9
1982/83	1,415	0	(24)	1,231	60	202	Total	65.5
1983/84	1,370	100	(73)	1,277	60	202		
1984/85	1,431	60	(123)	1,254	64	193		
1985/86	1,421	50	(53)	1,324	59	196		
1986/87	1,401	35						
1987/88	1,431	35						

Import requirements for Malawi

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereal equivalent						
1986/87	1,401	1,473	1,563	72	162	350
1987/88	1,431	1,521	1,613	90	182	375

Financial indicators for Malawi, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	284	318	68	68	217	8
1981	288	258	89	49	199	10
1982	242	214	62	23	180	6
1983	230	198	59	15	171	8
1984	303	174	82	57	221	5
1985	240	185	81	45	159	
1986	285	200	78	45	216	6
1987	315	220	86	45	234	6

Additional food needs to support consumption for Malawi

Commodity/year	Commerical import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	36	7	35	6	126	23
1987/88	40	7	49	9	141	25

MAURITIUS

All cereals consumed in Mauritius are imported, as none are produced domestically. Status quo import requirements for 1986/87 are 174,000 tons, about the same as the previous year. Commercial import capacity for 1986/87 increased to more than 300,000 tons due to increased export earnings and lower world commodity prices. Therefore, there are no additional food needs.

Mauritius basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	0	0	168	168	0	176	Wheat and	
1981/82	0	0	162	162	0	167	flour	20.5
1982/83	0	0	166	166	0	169	Rice	27.5
1983/84	0	0	143	143	0	144	Total	48.0
1984/85	0	0	175	175	0	175		
1985/86	0	0	175	175	0	173		
1986/87	0	0						
1987/88	0	0						

Import requirements for Mauritius

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereal equivalent						
1986/87	0	174	131	174	131	179
1987/88	0	176	133	176	133	181

Financial indicators for Mauritius, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	430	512	34	91	396	22
1981	291	475	49	35	242	39
1982	366	394	61	38	305	26
1983	367	385	83	18	284	23
1984	372	414	75	24	297	26
1985	390	455	65	30	325	
1986	450	480	86	30	362	25
1987	475	510	90	30	381	25

Additional food aid needs to support consumption for Mauritius

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	309	56	0	0	0	0
1987/88	333	59	0	0	0	0
Total						
1986/87			0	0	0	0
1987/88			0	0	0	0

MOZAMBIQUE

The food emergency in Mozambique shows no signs of ending soon, with agriculture and the entire economy disrupted by fighting. Food shortages increased in early 1986, as much pledged food aid did not arrive until later this year. Status quo additional needs are estimated at 505,000 tons for 1986/87, and nutritional needs are more than double this, at 1.3 million tons, which is indicative of the severe problems that exist.

Mozambique's crisis stemmed from widespread drought in 1982 to 1984 that aggravated chronic problems of low agricultural production. During this period, guerilla insurgency has escalated, causing havoc over much of the country. Thousands of farmers have been displaced and many have fled to neighboring countries. Insecurity prevents distribution of food aid to many affected people, while poor and nonexistent roads and shortages of fuel and vehicles are also major obstacles. Domestic grain marketed in 1985 reached the lowest level since independence, and could drop further this year. Beyond the physical problems of production and procurement, shortages of consumer goods offer farmers little incentive to grow surpluses.

Merchandise exports for 1985 were estimated to drop to just $75 million, compared with over $280 million in the early 1980's. Parallel to this has been a decline in earnings from the use of Mozambique's ports and rails by neighboring countries and from worker remittances. The country's commercial import capacity is very low and no improvement is forecast for the near future.

Mozambique basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	538	0	409	947	0	78	Wheat	6.2
1981/82	605	0	370	975	0	79	Rice	5.8
1982/83	570	0	373	943	0	74	Corn	15.5
1983/84	372	0	468	840	0	64	Sorghum	5.6
1984/85	429	0	394	823	0	62	Millet	0.2
1985/86	563	0	376	939	0	69	Cassava	39.7
1986/87	543	0					Total	73.0
1987/88	583	0						
Roots								
1980/81	2,800	0	0	2,800	0	231		
1981/82	2,850	0	0	2,850	0	230		
1982/83	2,900	0	0	2,900	0	228		
1983/84	2,300	0	0	2,300	0	177		
1984/85	2,600	0	0	2,600	0	196		
1985/86	2,800	0	0	2,800	0	205		
1986/87	2,900	0						
1987/88	3,000	0						

Import requirements for Mozambique

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	543	1,053	1,348	510	805	628
1987/88	583	1,084	1,389	501	806	622
Roots						
1986/87	2,900	3,142	4,474	242	1,574	346
1987/88	3,000	3,234	4,606	234	1,606	341
Cereal equivalent						
1986/87	1,706	2,313	3,142	608	1,436	741
1987/88	1,786	2,381	3,236	595	1,450	733

Financial indicators for Mozambique, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	448	870	91	268	357	19
1981	452	918	214	206	238	12
1982	394	971	226	71	168	26
1983	292	797	189	60	103	28
1984	211	687	165	72	46	76
1985	200	750	120	25	80	
1986	185	700	115	25	46	44
1987	250	750	155	25	67	44

Additional food needs to support consumption for Mozambique, and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	103	14	505	71	1,333	186
1987/88	154	21	441	60	1,296	176
Maximum absorbable						
Cereal equivalent						
1986/87			505	71	639	89
1987/88			441	60	578	79

SWAZILAND

Rainfall was good for Swaziland's summer crop season and cereal production is estimated up slightly to 95,000 tons for 1986/87. Once again, Swaziland had better weather and production than its neighbors to the west. Corn is readily available from South Africa, and Swazi producers have to compete with South Africa's supplies when marketing their corn.

Status quo import requirements for cereals during 1986/87 are estimated at 62,000 tons, almost identical to the 63,000 tons in the May report. Nutrition-based requirements are lower.

Swaziland's commercial import capacity for 1986/87, at $8 million, remains low and unchanged from the May report, but is sufficient to cover the import requirements for cereals and milk. Therefore, no additional food needs are estimated for 1986/87.

Swaziland basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	97	0	39	89	47	235	Corn	47.4
1981/82	98	0	48	96	50	245	Sorghum	0.7
1982/83	66	0	73	89	50	226	Milk	4.8
1983/84	52	0	88	92	48	222	Total	52.9
1984/85	112	0	37	119	30	229		
1985/86	92	0	52	114	30	215		
1986/87	95	0						
1987/88	97	0						
Milk								
1980/81	37	0	6	43	0	74		
1981/82	37	0	7	44	0	74		
1982/83	37	0	4	41	0	67		
1983/84	38	0	5	43	0	68		
1984/85	38	0	5	43	0	66		
1985/86	39	0	5	44	0	66		
1986/87	40	0						
1987/88	41	0						

Import requirements for Swaziland

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereal equivalent						
1986/87	95	157	143	62	48	74
1987/88	97	159	147	62	50	77
Milk						
1986/87	40	41	41	1	1	1
1987/88	41	42	42	1	1	1

Financial indicators for Swaziland, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	368	522	12	159	356	2
1981	388	512	16	96	372	2
1982	339	440	18	76	321	3
1983	310	475	19	93	291	3
1984	272	351	20	80	252	3
1985	270	375	23	83	247	
1986	280	410	16	83	264	3
1987	310	425	18	83	289	3

Additional food needs to support consumption for Swaziland

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	57	6	0	0	0	0
1987/88	65	7	0	0	0	0
Milk						
1986/87	4	2	0	0	0	0
1987/88	4	2	0	0	0	0
Total						
1986/87		8		0		0
1987/88		9		0		0

ZAMBIA

Zambia's status quo import requirements for 1986/87 are estimated at 135,000 tons. Assessed commercial import capacity is sufficient to cover these needs, leaving no additional status quo food needs. However, given the country's severe economic crisis, this estimate of commercial capacity is overly optimistic and some food aid needs will remain. Additional nutritional needs are considerable, estimated at over 200,000 tons.

Agricultural production in 1986 was good, reflecting favorable weather and increased incentives to farmers. Production of corn is estimated to be close to last year's level of 1.1 million tons. Zambia has not quite returned to self-sufficiency and some imports are planned. While a number of reforms generally have improved prospects for agricultural growth, institutional changes and transitional uncertainties could lead to some problems in marketing corn this year. Wheat is Zambia's chief import, although imports have been reduced considerably in recent years. While domestic output of wheat is increasing, consumption has decreased.

Zambia is undergoing a major economic stabilization and reform program. The long term prospects for growth are improving, but considerable difficulties remain in the near term. Export earnings are still low, largely because of weak prices for copper, the main export. Large-scale concessionary assistance will continue to be vital.

Zambia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	711	56	381	1,096	30	195	Wheat	9.0
1981/82	1,023	22	220	1,199	30	206	Rice	0.5
1982/83	752	36	248	969	40	164	Corn	58.5
1983/84	962	27	205	1,139	35	184	Total	68.0
1984/85	891	24	154	1,015	35	159		
1985/86	1,097	19	157	1,215	35	182		
1986/87	1,151	23						
1987/88	1,229	23						

Import requirements for Zambia

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereal equivalent						
1986/87	1,151	1,286	1,669	135	518	636
1987/88	1,229	1,327	1,731	98	502	605

Financial indicators for Zambia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	1,331	1,324	295	78	1,036	9
1981	982	1,238	294	56	688	4
1982	923	1,158	176	58	747	8
1983	992	839	123	55	869	3
1984	883	724	113	54	769	8
1985	814	760	465	63	349	
1986	825	815	153	63	681	7
1987	860	850	160	63	708	7

Additional food needs to support consumption for Zambia, with stock adjustment, and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	314	38	0	0	204	25
1987/88	335	40	0	0	166	20
Stock adjustment						
1986/87			145	18	145	18
1987/88			5	1	5	1
Total						
1986/87			0	0	349	43
1987/88			0	0	172	20
Maximum absorbable						
Cereal equivalent						
1986/87			0	0	322	39
1987/88			0	0	172	20

ZIMBABWE

Grain production in Zimbabwe continued high in 1986, although down from the record level of the previous year. At the beginning of the 1986/87 marketing year, Zimbabwe had record stocks of coarse grains estimated at over 1.5 million tons. Most of this stockpile consists of corn, the major staple. While small by comparison, stocks of sorghum were equivalent to 2 years of normal needs and stocks of millets probably even higher. Although rebuilding stocks was necessary after three years of drought that ended in 1985, the country was not able to export as much as hoped in 1985/86. Corn exports reached less than 300,000 tons, although an additional 130,000 tons had already been committed and will be shipped in the current year.

For 1986/87, Zimbabwe is estimated to have no additional food needs. However, this is a result of a net calculation. Zimbabwe still has import needs for wheat that are overwhelmed by the export surplus of coarse grains. Depending upon decisions about stock levels, wheat imports are expected in the range of 100,000 tons for 1986/87. Increases in irrigated area and available water should increase domestic production and wheat consumption is likely to continue to rise.

Zimbabwe will receive some wheat through triangular arrangements whereby donors supply wheat in exchange for Zimbabwe corn supplied to a third country. In addition, donors have purchased corn in Zimbabwe to provide as food aid to third countries.

Zimbabwe basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	2,046	246	7	1,704	300	273	Corn	46.6
1981/82	3,253	295	(288)	1,577	350	253	Wheat	8.6
1982/83	2,196	1,333	(464)	1,521	350	238	Sorghum	2.6
1983/84	1,160	1,194	(187)	1,624	300	236	Millet	6.2
1984/85	1,695	243	379	1,462	310	209	Total	63.9
1985/86	3,493	545	(164)	2,026	300	268		
1986/87	2,996	1,548						
1987/88	3,060	1,548						

Import requirements for Zimbabwe

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
			1,000 tons			
Cereal equivalent						
1986/87	2,996	2,085	2,584	(911)	(412)	523
1987/88	3,060	2,138	2,643	(922)	(417)	523

Financial indicators for Zimbabwe, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
			Million dollars			Percent
1980	1,444	1,338	44	214	1,400	2
1981	1,449	1,533	73	170	1,376	1
1982	1,318	1,472	148	140	1,170	1
1983	1,162	1,075	435	75	727	5
1984	1,192	995	276	45	916	8
1985	1,086	900	339	93	747	
1986	1,300	975	250	93	1,066	5
1987	1,325	1,000	255	93	1,084	5

Additional food needs to support consumption for Zimbabwe

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	249	34	0	0	0	0
1987/88	260	35	0	0	0	0

The Middle East

Additional status quo food needs for the Middle East region total 540,000 tons for 1986/87. This is up 6 percent from the May report, and mainly reflects a reduction in the grain production estimate. Despite a decline of $13 million in the region's commercial import capacity, lower prices mean that the quantity of grain that can be purchased actually increased.

Lebanon's economy continues to suffer from the devastating effects of civil war. Worker remittances have been declining for both Yemens, adversely affecting import capacity.

Middle East basic food data

Country/Commodity	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
	1,000 tons			Thousand	Kilos
Major cereals					
1980/81	956	249	1,105	9,964	215
1981/82	949	170	1,322	10,135	224
1982/83	875	173	1,426	10,316	220
1983/84	484	203	1,441	10,514	191
1984/85	666	116	1,672	10,737	216
1985/86	814	131	1,674	11,001	226
1986/87	846	132		11,225	
1987/88	876	132		11,454	

Middle East cereal use, additional food needs to support consumption, and stock adjustment

Commodity/year	Total use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
	1,000 tons	1,000 tons	1,000 tons	Million $	1,000 tons	Million$
Cereal equivalent						
Consumption						
1986/87	2,454	2,285	452	67	283	43
1987/88	2,503	2,333	474	68	304	44
Stock adjustment						
1986/87			88	12	88	12
1987/88			37	6	37	6
Total						
1986/87			540	79	371	55
1987/88			511	74	341	50

LEBANON

Lebanon's status quo cereal import requirements in 1986/87 are estimated at 583,000 tons, and nutrition-based requirements are at 533,000 tons. In 1985, agricultural output was estimated up by 5-6 percent primarily because of improved weather and abatement of civil war. The country's competitive position for its agricultural products improved following the depreciation of the Lebanese pound. However, agricultural output has been restructured toward high-value crops such as fruit and vegetables, which resulted in increasing dependence on imported food and feed grains. Lebanon's total grains imports remained at 590,000 tons in the last 3 years.

Several financial constraints have plagued the country. The GDP is estimated at 25 percent below the 1975 level when civil strife began. Inflation was 25.3 percent in 1984 and 60.1 percent at the end of 1985. The Government has not been able to collect sufficient revenues, while expenditure rose sharply. To finance this large deficit, the Government borrowed from domestic banks at high interest rates.

Lebanon's trade deficit contracted to about $500 million in 1985 from $660 million in 1984, as imports declined by one-fifth, while exports dropped by 16 percent. Commercial grain import capacity is estimated at 417,000 tons, which gives an additional status quo food aid need of 166,000 tons.

Lebanon basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	44	94	482	416	169	221	Wheat	37.8
1981/82	37	35	546	352	214	215	Rice	3.2
1982/83	24	52	569	391	197	225	Corn	0.3
1983/84	25	57	591	412	210	239	Barley	.0
1984/85	20	51	590	398	207	233	Total	41.4
1985/86	22	56	592	418	200	235		
1986/87	25	52						
1987/88	26	52						

Import requirements for Lebanon

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereal equivalent						
1986/87	25	608	558	583	533	694
1987/88	26	616	565	590	539	700

Financial indicators for Lebanon, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	3,851	3,184	13	1,588	3,839	5
1981	3,711	3,022	52	1,516	3,659	5
1982	3,269	3,909	65	2,608	3,204	5
1983	2,372	2,780	53	1,903	2,319	5
1984	1,940	2,600	53	672	1,887	8
1985	1,620	2,100	54	1,074	1,566	
1986	1,350	1,800	28	1,074	1,407	6
1987	1,220	1,700	26	1,074	1,335	6

Additional food needs to support consumption for Lebanon, with stock adjustment

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	417	52	166	21	116	14
1987/88	407	49	183	22	132	16
Stock adjustment						
1986/87			43	5	43	5
1987/88			1	0	1	0
Total						
1986/87			209	26	159	20
1987/88			184	22	133	16

NORTH YEMEN

The Yemen Arab Republic requires an estimated 726,000 tons of grain in 1986/87 to maintain status quo consumption levels. Nutrition-based import requirements are estimated at 620,000 tons. The estimate of commercial grain import capacity is 546,000 tons, which leaves an additional status quo need of 180,000 tons.

In 1985, several financial developments seriously affected the Yemen economy. Remittances from an estimated 1.4 million emigrant-workers in neighboring oil-producing countries dropped sharply. While the country's total imports dropped by more than 10 percent in 1985, total exports stagnated. The Yemeni riyal depreciated sharply during 1985 and early 1986. All these factors made grain imports more difficult to finance.

North Yemen basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					kilos		Percent
Major cereals								
1980/81	798	130	401	1,204	45	231	Wheat	15.0
1981/82	810	80	540	1,304	45	244	Rice	0.5
1982/83	759	81	599	1,294	45	236	Corn	4.4
1983/84	363	100	632	1,033	27	182	Sorghum	44.9
1984/85	545	35	739	1,219	55	213	Barley	1.4
1985/86	684	45	700	1,324	55	224	Total	66.2
1986/87	714	50						
1987/88	741	50						

Import requirements for North Yemen

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereal equivalent						
1986/87	714	1,440	1,334	726	620	941
1987/88	741	1,470	1,364	729	623	947

Financial indicators for North Yemen, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	1,245	2,253	21	1,283	1,223	12
1981	1,083	2,151	64	962	1,020	20
1982	1,361	2,382	55	554	1,305	15
1983	1,251	2,246	43	366	1,208	14
1984	1,100	1,869	67	319	1,033	19
1985	930	1,625	91	297	839	
1986	860	1,605	42	297	812	16
1987	831	1,555	40	297	794	16

Additional food needs to support consumption for North Yemen, with stock adjustment

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	546	81	180	27	74	11
1987/88	549	79	179	26	74	11
Stock adjustment						
1986/87			34	5	34	5
1987/88			23	3	23	3
Total						
1986/87			214	32	108	16
1987/88			203	29	97	14

SOUTH YEMEN

The country's 1986/87 status quo cereal import requirements are assessed at 299,000 tons, while nutrition based requirements are assessed at 286,000 tons. Based on a commercial import capacity of 193,000 tons, status quo additional needs are 106,000 tons.

The civil strife of January 1986 caused a large loss of the country's productive capacity, especially in the port of Aden, a key oil-loading and transhipment center. Years of reconstruction will be required before economic growth can resume.

In 1986, exports and other credits are expected to decrease mainly because of lower remittances and lower private financial flows. As a result, total foreign exchange reserves declined as the nation relies on remittances and revenue from its oil refinery at the port of Aden.

South Yemen basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	114	25	222	295	11	160	Wheat	30.7
1981/82	102	55	236	340	13	179	Rice	11.9
1982/83	92	40	258	331	13	170	Corn	2.6
1983/84	96	46	218	316	14	158	Sorghum	0.4
1984/85	101	30	343	430	14	207	Millet	12.8
1985/86	108	30	382	476	14	222	Barley	.0
1986/87	107	30					Total	58.3
1987/88	109	30						

Import requirements for South Yemen

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Cereal equivalent						
1986/87	107	406	393	299	286	470
1987/88	109	418	404	309	295	484

Financial indicators for South Yemen, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	450	598	9	234	441	20
1981	509	641	19	255	490	21
1982	547	691	20	286	527	20
1983	530	684	25	282	506	16
1984	525	825	35	249	490	21
1985	517	850	81	197	436	
1986	440	900	21	197	317	19
1987	448	930	21	197	315	19

Additional food needs to support consumption for South Yemen, with stock adjustment

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	193	36	106	20	93	17
1987/88	197	36	112	20	98	18
Stock adjustment						
1986/87			11	2	11	2
1987/88			12	2	12	2
Total						
1986/87			117	22	104	19
1987/88			124	23	111	20

Asia

South Asia

Cereal production in the region is projected to rise more than 4 percent to a record in 1986/87, assuming an average performance by the 1986 monsoon during July-September. Larger harvests are projected in Bangladesh, India, and Pakistan, while smaller harvests are expected in Nepal and Sri Lanka. Current estimates indicate that Pakistan and India harvested record 1986 wheat crops during April-June, with Pakistan's crop rebounding strongly after consecutive poor harvests in 1984 and 1985. Rice and coarse grain crops are currently being sown with average moisture conditions in most of the region and, with average weather during July-October and trend gains in input use, harvests are expected to match or exceed those in 1985/86. However, in Sri Lanka, where rice is harvested earlier than in the the rest of the region, heavy flooding has reportedly damaged the main 1986 harvest and production is expected to drop about 10 percent from the 1985 record. Food security stocks of cereals in India and Pakistan are record large and substantially above government targets. Stocks in Sri Lanka are sufficiently high to meet some of the expected production shortfall, while some stockbuilding may be needed in Bangladesh.

The outlook for oilseed harvests in the region in 1986/87 is varied. Average weather and stronger prices are projected to lead to a recovery in Indian oilseed production following a weather-induced setback in 1985/86. Marginally lower oilseed and oil production is expected in Pakistan, under the assumption that weakening prices will prevent another record cotton and cottonseed crop. Continued sluggish growth is expected in pulse production, particularly in India, because of lack of competitiveness with other crops.

Status quo import requirements in 1986/87 are expected to remain near last year's level of 3.4 million tons, with larger requirements in Sri Lanka, Nepal, and Afghanistan offsetting declines in Bangladesh and Pakistan. Nutrition-based import requirements are projected to drop 14 percent to 12.4 million tons, because of a further reduction of India's needs and a sharp decline in Pakistan. Maximum absorbable nutrition-based import needs are projected to be down 20 percent to about 7.4 million tons. Cereal import needs for stock building, confined to Nepal and Bangladesh, are projected at about 250,000 tons, compared with 80,000 in 1985/86. Status quo vegetable oil import requirements are projected to be unchanged at 1.7 million tons, with smaller Indian requirements offset by increases in Pakistan and Bangladesh. Nutrition-based vegetable oil import needs are anticipated to drop 10 percent to 1.5 million tons, but are viewed as underestimates of actual needs because they do not account for recent increases in the dietary share of edible oils. Pulse import requirements are confined to India and are projected to be up more than a third to 500,000 tons according to status quo estimates.

All South Asian countries continue to face tightening balance of payments situations that are expected to further limit the amount of foreign exchange that can be allocated to commercial food imports without affecting imports of development goods during 1986/87 and 1987/88. Growth in export earnings is likely to remain sluggish throughout the region because of weak primary commodity prices, competition, and, particularly in the case of Nepal, Bangladesh, and Sri Lanka, limited export potential. While lower petroleum prices will help constrain import costs, import bills will continue to rise because of liberalization measures and strengthening demand for development goods. Declining worker remittances resulting from reduced employment opportunities in the Middle East will result in a significant reduction in foreign exchange availabilities in Bangladesh, India, and Pakistan. Rising debt service obligations are becoming an increasingly severe constraint on foreign exchange availability, with Sri Lanka and Bangladesh facing the most acute problems. Relatively large recent commercial purchases of food grains have severely taxed Bangladesh's debt servicing capacity and balance of payments. Although availabilities of foreign exchange for commercial food imports are expected to either decline or remain constant throughout the region, sharp projected declines in import costs for rice, wheat, and vegetable oils will, in most cases, lead to an increase in quantities that can be commercially purchased.

Status quo additional food needs to support both consumption and stock building in the region are projected at 1.5 million tons of cereals in 1986/87, down from 1.8 million in 1985/86. However, because Bangladesh's tight financial position may necessitate smaller outlays for commercial food purchases, additional status quo food needs in the region might be better assessed at about 1.8 million tons. Maximum absorbable nutrition-based additional food needs are projected to fall sharply from 5 million tons in 1985/86 to 2 million in 1986/87. However, the drop in total nutrition-based needs stems entirely from declines in India and Pakistan, while needs elsewhere in the region are projected to either increase or remain constant. With sharply lower projected prices of vegetable oils, commercial import capacity is projected to be adequate to cover all vegetable oil and pulse import requirements in the region in 1986/87.

Based on the assumption of average weather and trend gains in production, coupled with the outlook for a further decline in the cost of food grain and edible oil imports, total regional status quo and nutrition-based additional food needs are projected to decline in 1987/88.

South Asia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
	---------1,000 tons-------			Thousand	Kilos
Major cereals					
1980/81	151,893	19,850	399	906,091	170.2
1981/82	159,939	17,933	3,276	926,031	174.2
1982/83	151,695	19,792	5,864	947,382	164.0
1983/84	178,318	21,937	5,234	969,559	182.2
1984/85	175,714	28,797	3,605	991,723	175.5
1985/86	176,151	34,053	2,367	1,013,540	174.8
1986/87	183,557	35,428		1,035,779	
1987/88	188,353	35,428		1,058,247	

South Asia cereal use, additional food needs to support consumption, and stock adjustment

Commodity/year	Total Use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
	1,000 tons	1,000 tons	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	180,477	195,564	1,246	187	4,365	641
1987/88	184,389	199,923	855	130	4,073	585
Stock adjustment						
1986/87			205	30	205	30
1987/88			101	13	101	13
Total cereal equivalent						
1986/87			1,451	217	4,570	671
1987/88			956	144	4,174	598
Maximum absorbable						
Cereal equivalent						
1986/87			1,451	217	1,988	293
1987/88			956	144	1,520	220

AFGHANISTAN

There has been no reliable information with which to assess agricultural supply and demand conditions in Afghanistan since the Soviet incursion in December 1979. It is assumed in these estimates that, following initial setbacks in production because of disruptions and outmigration caused by the incursion, food grain production has stabilized at a level somewhat below pre-incursion levels. It is also assumed that population declined during 1980-1984 because of the outmigration of about 5 million citizens, but has resumed growth at it pre-incursion rate since 1984. These assumptions result in relatively high estimates of per capita food grain supplies in recent years because reduced population more than offsets lower production. However, because of lack of information, these assumptions may result in a significant misrepresentation of the actual food supply situation in Afghanistan.

Status quo import requirements are estimated at 566,000 tons in 1986/87, up sharply from 1985/86 because of resumed population growth and higher estimated average per capita consumption in the new 1982/83-1985/86 base period. Nutrition-based import needs are also estimated to rise because of increased population but, at 249,000 tons, are substantially below status quo needs. The availability of foreign exchange for commercial food imports is estimated to remain about unchanged from 1985/86, with lower prices for natural gas exports and continued economic disruptions preventing any significant increase in export earnings. However, lower world food grain prices are projected to boost the quantity of food grains that can be imported commercially by 40 percent to about 140,000 tons. Additional food needs are placed at 420,000 tons according to the status quo approach and 105,000 according to the nutrition-based approach, compared with 64,000 tons and 67,000 tons, respectively, in 1985/86. Under the assumptions of stable production and continued population growth, both status quo and nutrition-based additional food needs are projected to rise in 1987/88.

Afghanistan basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	3,847	0	334	4,181	0	274	Wheat	48.8
1981/82	4,107	0	368	4,475	0	306	Rice	7.3
1982/83	4,120	0	352	4,472	0	315	Corn	16.2
1983/84	4,092	0	365	4,457	0	314	Total	72.3
1984/85	4,112	0	365	4,477	0	310		
1985/86	4,112	0	365	4,477	0	304		
1986/87	4,112	0						
1987/88	4,112	0						

Import requirements for Afghanistan

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Cereals						
1986/87	4,112	4,678	4,361	566	249	728
1987/88	4,112	4,777	4,435	665	323	828

Financial indicators for Afghanistan, actual and projected

Year	Exports	Imports	Debt Service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	705	889	53	371	490	13
1981	691	1,031	118	274	652	4
1982	708	953	134	258	573	4
1983	729	1,024	120	214	574	6
1984	788	1,385	126	229	609	4
1985	717	978	126	216	591	
1986	730	996	120	203	592	4
1987	748	1,015	120	190	593	4

Additional food needs to support consumption for Afghanistan

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
1986/87	144	23	423	69	105	17
1987/88	148	23	516	81	175	28

BANGLADESH

Food grain production is projected to rise more than 4 percent to a record 17.1 million tons in 1986/87, assuming average monsoon rainfall during June–September 1986. Pre–monsoon rains have been near–average and, combined with favorable price incentives and further gains in input use, are projected to contribute to a record 1986/87 rice crop of about 15.6 million tons if rainfall continues to be normal. The 1986/87 wheat crop is expected to rebound from poor weather in 1985/86 and reach a record of 1.5 million tons. Growth in vegetable oil production is projected to remain sluggish, primarily because of lack of government emphasis on oilseeds production. Consecutive good harvests, coupled with abnormally large commercial imports in 1984/85, enabled the Government to halve food grain imports to 1.3 million tons in 1985/86 and still maintain relatively high stocks of about 955,000 tons as of July 1986. However, stocks are still below the informal food security target of about 1.2 million tons.

Status quo cereal import requirements are estimated at 1.8 million tons in 1986/87, down about 13 percent from the revised estimate of 1985/86 requirements, because of expected production gains.1/ Nutrition–based import requirements are projected at 4.8 million tons, compared with 5.0 million in 1985/86, but still indicate a gap of 29 kilograms between recently achieved levels of per capita consumption and that required to achieve the FAO/WHO recommended minimum caloric intake. However, capacity to absorb cereal imports in the domestic marketing system is estimated at only 2.6 million tons. Import needs to continue building food security stocks to protect against a production shortfall are estimated at 238,000 tons. Status quo edible oil import requirements are projected to rise 13 percent to 164,000 tons in, with nutrition–based needs rising to 139,000 tons, as population growth outpaces anticipated production gains.

After a modest improvement in 1985/86, stemming from a small increase in exports, an influx of foreign remittances as many Bangladeshi workers returned from employment in the Middle East, and a sharp drop in food grain imports, Bangladesh's balance of payments is likely to deteriorate substantially over the next 2 years. Lower petroleum prices will provide little relief on the import side because most oil imports are already on concessional terms. An extremely narrow export base offers little scope for rapid gains. In addition, foreign remittances will likely decline, food grain imports will probably average higher than in 1985/86, and debt service obligations incurred to make large commercial food grain imports in recent years will fall due. Despite these adverse factors, standard calculation procedures yield a commercial food grain import capacity of $172 million (1.2 million tons) in 1986/87, up sharply from the $107 million (484,000 tons) estimated for 1985/86. The increase has occurred because the revised base period for the

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1/ Previously reported status quo cereal input requirements of 1.605 million tons have been adjusted to 2.075 million because of lower final estimates of 1985/86 cereal production.

calculations now includes the abnormally large emergency outlays for commercial food grain imports in 1984/85, as well as lower projected import unit values. In 1984/85, commercial purchases were valued at $264 million, nearly three times the 1980/81–1983/84 average. Continued allocation of such a large share of available foreign exchange to food grain purchases during 1986/87 and 1987/88 could necessitate curbs on imports of development goods and further large increases in debt service obligations. Basing projected commercial import capacity, instead, on 1980/81–1983/84 average levels of commercial imports yields a commercial import capacity of about $120 million (836,000 tons) in 1986/87 that is still sharply higher than in 1985/86.

Additional cereal needs to support consumption and stock building for 1986/87, using the standard commercial import capacity calculation, are estimated at 785,000 tons, down 30 percent from the 1985/86 estimate. Using the adjusted commercial import capacity calculation, additional status quo cereal needs are placed at 1.1 million tons, down marginally from the 1985/86 estimate. Maximum absorbable nutrition-based additional cereal needs, including imports for stock building, are estimated at 1.5 million tons using the standard import capacity calculation and 1.8 million using the adjusted calculation, compared with 1.8 million in 1985/86. Additional food needs in the form of edible oils in 1986/87 are estimated at zero according to both the status quo and nutrition-based estimates because a sharp projected decrease in world vegetable oil prices will allow adequate quantities to be purchased commercially. In 1987/88, both status quo and nutrition-based additional food needs are projected to decline further, assuming average rainfall and trend gains in production.

Bangladesh basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	14,975	787	1,077	15,587	0	177	Wheat	8.8
1981/82	14,598	1,252	1,235	16,470	0	182	Rice	76.3
1982/83	15,311	615	1,817	17,117	0	183	Vegetable	
1983/84	15,710	626	2,056	17,592	0	183	oil	2.2
1984/85	16,084	800	2,588	18,464	0	188	Total	87.3
1985/86	16,380	1,008	1,289	17,722	0	176		
1986/87	17,100	955						
1987/88	17,696	955						
Vegetable oils								
1980/81	56	18	140	161	0	2		
1981/82	54	53	144	200	0	2		
1982/83	55	51	164	207	0	2		
1983/84	57	63	152	193	0	2		
1984/85	57	79	210	213	0	2		
1985/86	57	133	240	283	0	3		
1986/87	58	147						
1987/88	58	147						

Import requirements for Bangladesh

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Cereals						
1986/87	17,100	18,912	21,913	1,812	4,813	2,600
1987/88	17,696	19,333	22,424	1,637	4,728	2,436
Vegetable oils						
1986/87	58	222	204	164	146	232
1987/88	58	227	209	169	151	238

Financial indicators for Bangladesh, actual and projected

Year	Exports and other credits	Imports	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	1,364	2,795	125	249	1,239	13
1981	1,299	2,890	170	108	1,129	15
1982	1,545	2,651	260	350	1,285	21
1983	1,717	2,728	193	539	1,524	16
1984	1,721	2,989	227	404	1,494	25
1985	1,759	2,879	280	362	1,479	
1986	1,794	2,967	324	395	1,364	20
1987	1,978	3,282	335	405	1,493	20

Additional food needs to support consumption for Bangladesh, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	1,195	172	554	80	3,506	503
1987/88	1,346	188	152	21	3,194	446
Stock adjustment						
1986/87			231	33	231	33
1987/88			26	4	26	4
Total						
1986/87			785	113	3,737	536
1987/88			179	25	3,221	449
Vegetable oils						
1986/87	187	75	0	0	0	0
1987/88	222	82	0	0	0	0
Total						
1986/87		246		113		536
1987/88		269		25		449
Maximum absorbable						
Cereal equivalent						
1986/87			785	113	1,524	219
1987/88			179	25	929	130
Vegetable oils						
1986/87			0	0	0	0
1987/88			0	0	0	0
Total						
1986/87				113		219
1987/88				25		130

INDIA

Cereal production is forecast to rise more than 3 percent to a record 139.6 million tons in 1986/87. The 1986 wheat crop, harvested during April–May, is estimated at a record 47 million tons, due to good weather in most producing areas and further gains in use of fertilizers and other inputs. Planting of 1986/87 crops of rice and coarse grains is now underway with generally favorable moisture conditions, except in portions of western and central India where rainfall since July 1985 has been poor. Assuming average monsoon rainfall during July-September, the 1986/87 rice crop is projected at 60 million tons, down slightly from the 1985/86 record, while coarse grain production is forecast to rebound by about 9 percent from last year's drought-damaged harvest. Because of above-trend cereal harvests in recent years that have increased government purchases in price support operations and slowed offtake of subsidized cereals through the public distribution system, government wheat and rice stocks are now well above target. Government stocks of wheat and rice totaled about 30.5 million tons in July 1986, compared with the target of 21 million and available covered storage capacity of about 20 million. Government efforts to reduce the surplus by expanding subsidized distribution, increasing exports, and shifting wheat and rice area to other crops have, so far, met with limited success.

The 1986/87 pulse crop is estimated to be up about 2 percent from last year due to generally improved rainfall in winter producing regions of north India. Edible oil production is projected to rebound by about 10 percent to a record after falling 8 percent in 1985/86 primarily because of drought-damage to the peanut crop. Domestic oilseed prices are now rising because of the setback in production last year and a reduction in edible oil imports that was intended to ensure adequate price incentives. With average weather, further gains in oilseed area and yields are expected in 1986/87.

India's status quo cereal import needs continue to be estimated at zero for 1986/87 because of the outlook for sustained above-trend production. Nutrition-based cereal import needs are placed at 5.3 million tons, down 20 percent from 1985/86. Although the standard calculation procedure indicates that imports are required for stock-building, stocks already exceed both government targets and storage capacity by about 9 million tons, leading the Government to seek export markets for surplus wheat and rice. Similarly, although capacity to absorb cereal imports is estimated at 3 million tons in 1986/87, inability to substantially reduce surplus stocks through domestic sales indicates that absorptive capacity is negligible. Status quo edible oil import needs are estimated at 945,000 tons, down 5 percent from 1985/86 because of expected higher local production. Nutrition-based edible oil import needs are placed substantially lower at about 800,000 tons, but are viewed as an underestimate because of recent gains in edible oil consumption. Status quo pulse import requirements are estimated to rise more than 35 percent to about 500,000 tons as population growth outpaces production gains. Estimated 1986/87 nutrition-based pulse import needs are lower than the status quo estimates, but are viewed as underestimates because the base period used to compute dietary shares includes several years of very low pulse availabilities.

India's balance of payments position is projected to remain tight during 1986/87 and 1987/88. Imports increased sharply in 1985/86 in response to liberalization measures affecting industrial raw materials, equipment, and technology, but lower oil prices are expected to ease pressure on the import bill over the next 2 years. Efforts to stimulate export earnings have been hampered by lack of price and quality competitiveness, and only modest gains are projected in the near term. Foreign exchange earnings will also be hit by sluggish growth in remittances from Indian workers in the Middle East. In addition, debt service payments are projected to rise markedly over the next several years, reflecting large repayments to the IMF, and the recent increased use of foreign commercial borrowing. However, foreign exchange availabilities are likely to be more than adequate to purchase all needed food items, which account for a small share of the import bill, on commercial terms.

India's status quo additional food needs are estimated at zero in 1986/87, with commercial import capacity more than adequate to finance assessed edible oil and pulse import needs. Nutrition-based additional needs are also estimated at zero. Assuming average weather, both status quo and nutrition-based additional needs are also projected at zero for 1987/88 and, given the size of the current cereal surplus, these projections will likely hold even in the event of a serious drought-induced production setback in 1986/87 or 1987/88.

India basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals 1/								
1980/81	113,810	17,561	(835)	112,937	2,320	168	Wheat	18.5
1981/82	120,949	15,279	1,546	118,384	2,420	172	Rice	33.2
1982/83	112,446	16,970	3,477	111,722	2,420	159	Corn	3.1
1983/84	136,831	18,751	3,085	131,208	2,620	183	Sorghum	5.8
1984/85	135,566	24,839	(161)	127,244	2,620	173	Millet	5.2
1985/86	135,071	30,380	(695)	130,746	2,710	174	Barley	0.7
1986/87	139,600	31,300					Pulses	5.8
1987/88	143,300	31,300					Vegetable	
Vegetable oils							oil	6.3
1980/81	2,668	180	1,293	3,981	0	6	Total	78.7
1981/82	3,392	160	962	4,434	0	6		
1982/83	2,974	80	1,259	4,163	0	6		
1983/84	3,376	170	1,697	4,853	0	7		
1984/85	3,801	390	1,355	5,206	0	7		
1985/86	3,488	340	1,150	4,778	0	6		
1986/87	3,845	200						
1987/88	4,000	200						
Pulses								
1980/81	8,572	0	173	8,595	150	13		
1981/82	10,627	0	128	10,605	150	15		
1982/83	11,507	0	150	11,507	150	16		
1983/84	11,857	0	300	12,057	100	17		
1984/85	12,893	0	200	12,993	100	17		
1985/86	12,195	0	225	12,320	100	16		
1986/87	12,500	0						
1987/88	12,800	0						

1/ Cereal stock data are for government stocks as of July 1.

Import requirements for India

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Cereal equivalent						
1986/87	139,600	134,303	144,861	(5,297)	5,261	3,011
1987/88	143,300	137,123	148,012	(6,177)	4,712	2,306
Vegetable oils						
1986/87	3,845	4,790	4,643	945	798	1,772
1987/88	4,000	4,891	4,744	891	744	1,731
Pulses						
1986/87	12,500	12,997	12,770	497	270	2,069
1987/88	12,800	13,270	13,042	470	242	2,075

Financial indicators for India, actual and projected

Year	Exports	Imports	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	12,295	17,994	1,292	6,858	11,261	7
1981	12,086	17,645	1,377	4,461	10,794	9
1982	11,730	17,049	1,756	4,965	10,353	8
1983	12,153	17,501	2,103	5,847	10,397	15
1984	12,326	16,581	2,366	6,110	10,223	17
1985	12,580	19,462	2,600	6,410	9,980	
1986	13,030	18,210	2,900	6,600	10,021	13
1987	13,750	18,420	3,300	6,700	10,364	13

Additional food needs to support consumption for India

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent 1/						
Consumption						
1986/87	3,761	535	0	0	0	0
1987/88	4,001	554	0	0	0	0
Vegetable oils						
1986/87	1,914	725	0	0	0	0
1987/88	2,147	750	0	0	0	0
Pulses						
1986/87	73	36	0	0	0	0
1987/88	72	37	0	0	0	0
Total						
1986/87		1,296		0		0
1987/88		1,340		0		0

1/ Commercial import capacity surplus to additional food needs in individual commodity groups offsets some additional cereal needs.

NEPAL

Food grain production in 1986/87 is estimated at 3.15 million tons, marginally below 1985/86. The 1986 wheat crop, harvested during April–June, is estimated at 600,000 tons, 4 percent below last year, because of less favorable weather. The size of the 1986/87 rice crop will depend heavily on the performance of the 1986 monsoon during July–September. Pre-monsoon rainfall has been normal and, assuming average rainfall during the monsoon, rice production is estimated to match or marginally exceed last year's 1.8 million tons. Production of corn, grown primarily as a subsistance crop in hill regions, is not expected to show a significant increase from recently achieved levels because of poor quality soils, limited scope for area expansion, and the cost and difficulty of boosting input use. Nepal's food situation continues to be characterized by a diminishing surplus in rice production in the Terai (plains) region, and substantial deficits in subsistance production in hill regions where much of the population lives. Food grain imports are relatively expensive because of Nepal's mountainous and landlocked geography, and costs of distributing domestic or imported foods in hill regions are high.

Nepal's status quo cereal import needs are estimated to rise from zero in 1985/86 to about 130,000 tons in 1986/87, due to a combination of lower estimated production and continued high population growth. For the same reasons, nutrition-based import needs are estimated to rise from 560,000 tons in 1985/86 to 670,000. The wide gap between status quo and nutrition-based needs is indicative of a similarly wide gap between current levels of food availability and those needed to achieve the recommended minimum level of caloric intake. Status quo per capita consumption of 188 kilograms is only 86 percent of the recommended minimum intake level. The capacity of Nepal's marketing system to absorb food imports is estimated at 315,000 tons, but this may be too high because of difficulties in overland shipping and distribution of food in hill regions.

Nepal's location and low level of economic development offers very limited potential to earn foreign exchange to finance imports. Most trade is conducted in nonconvertible currencies with neighboring India and Tibet, and traditional exportable surpluses of rice, lumber, and other agricultural raw materials have been declining. Tourism and overseas remittances are the major sources of foreign exchange and have shown limited growth. Imports consist primarily of petroleum and development goods, with foreign exchange constraints necessitating restrictions on nonessential imports. No significant improvement is expected in Nepal's balance of payments during 1986 and 1987, with commercial food import capacity limited to about $14 million, including 18,000–20,000 tons of cereals.

Nepal's additional status quo cereal needs are estimated to rise from zero in 1985/86 to about 112,000 tons in 1986/87, while nutrition-based additional needs are estimated to rise from 560,000 tons to 650,000 tons. However, the capacity of the overland transport and internal marketing system to absorb food grain imports is probably limited to no more than 150,000 tons. In 1987/88, growth in population is projected to outpace production gains, leading to a further increase in both status quo and nutrition-based additional food needs.

Nepal basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	2,861	0	(26)	2,835	0	189	Wheat	10.9
1981/82	2,983	0	(42)	2,941	0	191	Rice	49.5
1982/83	2,598	0	83	2,681	0	170	Corn	19.6
1983/84	3,230	0	(16)	3,164	0	196	Total	80.0
1984/85	3,088	50	(49)	3,089	0	186		
1985/86	3,173	0	(25)	3,148	0	185		
1986/87	3,150	0						
1987/88	3,225	0						

Import requirements for Nepal

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Cereal equivalent						
1986/87	4,112	4,678	4,361	566	249	728
1987/88	4,112	4,777	4,435	665	323	828

Financial indicators for Nepal, actual and projected

Year	Exports	Imports	Debt service	International reserves	Foreign exchange available Total	Foreign exchange available Share to major food imports
	Million dollars					Percent
1980	353	450	4	189	351	2
1981	334	453	6	226	338	3
1982	307	523	7	157	374	1
1983	361	559	12	117	392	3
1984	359	527	17	70	323	1
1985	371	551	24	68	347	
1986	383	582	29	66	284	2
1987	405	618	33	64	291	2

Additional food needs to support consumption for Nepal, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	18	3	112	18	649	107
1987/88	19	3	121	19	671	107
Stock adjustment						
1986/87			17	3	17	3
1987/88			0	0	0	0
Total						
1986/87			129	21	666	110
1987/88			121	19	671	108
Maximum absorbable						
Cereal equivalent						
1986/87			129	21	297	49
1987/88			121	19	309	50

PAKISTAN

Pakistan's cereal harvest is forecast to rebound sharply to a record of nearly 18 million tons in 1986/87, following weather-induced setbacks to wheat production in 1984/85 and 1985/86 and to the rice crop in 1985/86. The 1986 wheat harvest, completed during April-June, is estimated at 13.5 million tons, 9 percent above the previous record. Good weather, strong price incentives, and government promotion efforts led to the recovery. The 1986/87 rice crop is projected to recover to about 3.4 million tons assuming an average 1986 monsoon, following a sharp decline in yields because of poor weather in 1985/86. Government food grain stocks, consisting primarily of wheat and bolstered by imports during the last 2 years, are estimated at a record 2.9 million tons at the end of 1985/86, compared with the informal government target of 2-2.5 million. Domestic edible oil production increased sharply in 1984/85 and 1985/86 because of consecutive record-shattering harvests of cotton and cottonseed. Edible oil output is projected to fall marginally in 1986/87, under the assumption that weakening prices will lead to lower cotton output. Pulse production is forecast to continue its recent upward trend in 1986/87, assuming average rainfall.

With the expected recovery in cereal production in 1986/87, status quo cereal import needs are projected to fall from 1 million tons in 1985/86 to zero, while nutrition-based needs fall from 2 million tons to 560,000 tons. Cereal import needs for stock building are estimated at 146,000 tons, but this is viewed as an overestimate because stocks are already above the government's informal target. Status quo edible oil import needs are projected to rise from 496,000 tons in 1985/86 to 623,000 because of the anticipated slowdown in domestic production, as well as the increasing level of per capita use achieved in recent years. Nutrition-based edible oil import needs, which do not account for increases in the dietary share of edible oils in the last several years, are projected to rise only about 4 percent to 454,000 tons. Pulse import needs continue to be estimated at zero, with recent production gains satisfying both status quo and nutrition-based needs.

Pakistan's balance of payments improved significantly in 1985/86 because strong gains in cotton and rice exports and a decline in the import bill stemming from lower prices for petroleum, food grains, and edible oils. However, debt service obligations are increasing steadily and worker remittances, a critical source of foreign exchange, have slowed significantly. This situation places increased importance on sustaining export growth and controlling the import bill over the next several years. During 1986/87 and 1987/88, export earnings from cotton, rice, yarn, textiles, and nontraditional items are projected to continue to rise more rapidly than the import bill, leading to a gradually declining trade deficit and slower growth in debt obligations. Commercial food import capacity is estimated at $375 million in 1986/87 which, using historical import shares and lower projected world prices, is sufficient to purchase 260,000 tons of cereals, 720,000 tons of edible oils, and 110,000 tons of pulses.

Pakistan's additional food needs are estimated at zero in 1986/87, according to both status quo and nutrition-based estimates. Estimated commercial import capacity is sufficient to commercially purchase import requirements to meet both status-quo and nutrition-based consumption targets. With average weather, domestic production and commercial import capacity are projected to remain adequate to meet both status quo and nutrition-based needs in 1987/88.

Pakistan basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	14,950	1,248	(843)	14,021	130	166	Wheat	47.2
1981/82	15,833	1,204	(494)	14,394	130	164	Rice	10.5
1982/83	15,754	2,019	(654)	14,636	140	162	Corn	3.3
1983/84	16,767	2,343	(984)	15,184	150	163	Pulses	2.2
1984/85	15,224	2,792	157	15,579	160	163	Vegetable	
1985/86	15,606	2,434	613	15,610	170	159	oil	7.7
1986/87	17,960	2,873					Total	70.9
1987/88	18,170	2,873						
Vegetable oils								
1980/81	223	75	455	691	0	8		
1981/82	238	62	573	806	0	9		
1982/83	254	67	663	915	0	10		
1983/84	188	69	630	810	0	9		
1984/85	287	77	665	954	0	10		
1985/86	339	75	701	1,050	0	11		
1986/87	334	65						
1987/88	340	65						
Pulses								
1980/81	526	0	0	496	30	6		
1981/82	489	0	0	439	50	6		
1982/83	694	0	0	642	52	8		
1983/84	801	0	0	751	50	9		
1984/85	750	0	0	700	50	8		
1985/86	800	0	0	750	50	8		
1986/87	825	0						
1987/88	850	0						

Import requirements for Pakistan

Commodity/year	Production	Total use		Import requirements 1/		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Cereal equivalent						
1986/87	17,960	16,582	17,943	(508)	559	385
1987/88	18,170	17,020	18,399	(147)	920	769
Vegetable oils						
1986/87	334	909	788	575	454	756
1987/88	340	933	809	593	469	778
Pulses						
1986/87	825	753	765	(72)	(60)	234
1987/88	850	773	785	(77)	(65)	237

1/ Cereal equivalent import requirements and import maximums are net of traditional rice exports.

Financial indicators for Pakistan, actual and projected

Year	Exports and other credits	Imports	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	5,799	6,824	743	1,058	4,680	7
1981	5,595	7,130	985	809	4,564	7
1982	6,618	7,130	922	1,911	4,987	8
1983	6,681	7,683	1,078	1,731	5,575	6
1984	5,983	7,520	1,203	672	5,285	9
1985	6,400	7,462	1,423	1,050	4,977	
1986	6,714	7,739	1,494	1,050	4,937	8
1987	7,169	8,060	1,546	1,150	5,385	8

Additional food needs to support consumption for Pakistan

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent 1/						
Consumption						
1986/87	264	35	0	0	0	0
1987/88	296	38	0	0	0	0
Vegetable oils						
1986/87	717	253	0	0	0	0
1987/88	848	276	0	0	0	0
Pulses						
1986/87	112	55	0	0	0	0
1987/88	117	60	0	0	0	0
Total						
1986/87		342		0		0
1987/88		373		0		0

1/ Commercial import capacity surplus to additional food needs in individual commodity groups offsets some additional cereal needs.

SRI LANKA

The 1986 rice crop is estimated at 1.6 million tons, 10 percent below the 1985 record, because of heavy flooding when the main (Maha) crop was nearing harvest. However, good weather during the growing season for the secondary (Yala) rice crop may permit recovery of some of the losses. Production of cassava is expected to remain substantially below the peak levels of the early 1980's as government policies and programs emphasize rice and tree crop cultivation. Coconut, copra, and coconut oil production have bounced back in recent years after stagnating in the late 1970's, and 1986 oil output is estimated at 135,000 tons, marginally below the 1985 record. Food security stocks of rice and wheat increased to about 300,000 tons at the beginning of 1986 due to the record rice crop, as well as larger government imports to build stocks and protect against possible supply disruptions caused by civil unrest. Rice imports increased sharply from an historical low of 40,000 tons in 1984 to 195,000 in 1985.

Because of the expected decline in rice production and the outlook for continued sluggish growth in cassava output, status quo cereal equivalent import needs are estimated to rise sharply from 607,000 tons in 1985/86 to 890,000 in 1986/87. Nutrition-based needs are also estimated to rise to about 840,000 tons, but are below the status quo estimate because recent levels of per capita availability exceed those needed to achieve the FAO/WHO recommended level of caloric intake. Because food security stocks are relatively high and cereal production is estimated to be substantially below trend in 1986, about 40,000 tons of import needs can be expected to be met by stock withdrawals. No import requirements are estimated for vegetable oils, with the recent production recovery likely to allow Sri Lanka to again be a coconut oil exporter.

Following a brief recovery in 1984 because of sharply increased earnings from tea exports, Sri Lanka's balance of payments deteriorated further in 1985. Export earnings fell as world tea prices weakened, the import bill for development goods rose sharply, foreign reserves fell, and debt service obligations, some of which are being incurred to cover the cost of civil defense activities, continued their steady rise. Export growth is projected to remain sluggish in 1986 and 1987 because of weak prices for traditional exports of tree crop products and refined petroleum products, while imports continue to rise as the Government seeks to meet the needs of development programs. Debt service payments are scheduled to increase substantially, reaching a burdensome 26 percent of current receipts in 1987, and foreign reserves are projected to fall. Because of the tightening balance of payments outlook, Sri Lanka's total capacity to import food commercially without taxing imports of development goods is estimated to drop from about $178 million in 1985 to about $128 million, even if an historically high share of available foreign exchange is allocated to food imports to cope with the rice production shortfall. The portion of commercial food import capacity available for food grains is estimated at $92 million, or about 710,000 tons of imports.

Sri Lanka's status quo additional food needs are estimated to rise from zero in 1985/86 to about 139,000 tons in 1987/88, while nutrition-based additional needs rise from zero to about 106,000 tons. The increase stems from the expected decline in rice production and the deteriorating outlook for Sri Lanka's balance of payments, and occurs despite withdrawls from stocks and allocation of an historically high portion of available foreign exchange to food imports. Additional food needs are projected to decline in 1987/88 assuming that average weather leads to a recovery in rice production. However, the continued weak balance of payments outlook and the need to rebuild stocks will likely keep needs at historically high levels.

Sri Lanka basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	1,450	254	692	2,198	0	146	Wheat	13.8
1981/82	1,469	198	663	2,142	0	139	Rice	42.0
1982/83	1,466	188	789	2,226	0	142	Cassava	3.0
1983/84	1,688	217	728	2,317	0	145	Vegetable	
1984/85	1,640	316	705	2,430	0	150	oil	3.5
1985/86	1,809	231	820	2,560	0	155	Total	62.3
1986/87	1,635	300						
1987/88	1,850	300						
Roots								
1980/81	500	0	0	500	0	33		
1981/82	526	0	0	526	0	34		
1982/83	573	0	0	573	0	37		
1983/84	722	0	0	722	0	45		
1984/85	477	0	0	477	0	29		
1985/86	486	0	0	486	0	29		
1986/87	500	0						
1987/88	550	0						
Vegetable oils								
1980/81	78	0	(5)	73	0	5		
1981/82	103	0	(35)	68	0	4		
1982/83	87	0	(26)	61	0	4		
1983/84	37	0	1	38	0	2		
1984/85	130	0	(63)	67	0	4		
1985/86	140	0	(62)	78	0	5		
1986/87	135	0						
1987/88	140	0						

Import requirements for Sri Lanka

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Cereals						
1986/87	1,635	2,490	2,451	855	816	1,159
1987/88	1,850	2,535	2,510	685	660	992
Roots						
1986/87	500	592	558	92	58	NA
1987/88	550	602	580	52	30	NA
Cereal equivalent						
1986/87	1,831	2,722	2,669	891	838	1,214
1987/88	2,066	2,771	2,738	705	672	1,032
Vegetable oils						
1986/87	135	72	92	(63)	(43)	(54)
1987/88	140	73	94	(67)	(46)	(57)

Financial indicators for Sri Lanka, actual and projected

Year	Exports	Imports	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	1,479	2,269	229	246	1,250	14
1981	1,581	2,182	266	327	1,315	13
1982	1,612	2,322	300	351	1,312	9
1983	1,682	2,315	341	297	1,341	10
1984	2,075	2,269	317	511	1,758	7
1985	1,893	2,601	368	451	1,525	
1986	1,942	2,787	485	354	1,339	8
1987	2,038	2,924	537	353	1,359	8

Additional food needs to support consumption for Sri Lanka, with stock adjustment

Commodity/year	Commercial import capacity		Status-quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	708	93	157	21	105	14
1987/88	639	81	65	8	32	4
Stock adjustment						
1986/87			(43)	(6)	(43)	(6)
1987/88			74	9	74	9
Total						
1986/87			115	15	62	8
1987/88			139	18	106	14
Vegetable oils						
1986/87	19	3	0	0	0	0
1987/88	1	0	0	0	0	0
Total						
1986/87		96		15		8
1987/88		81		18		14

Southeast Asia

During 1985/86, the region's cereal production increased marginally to a record 52.4 million tons, as gains in Laos and Philippine rice output offset reduced harvests in Vietnam, Indonesia, and Cambodia. Net cereal imports fell 19 percent from the year before to 3.5 million tons, causing a slight drop in per capita cereal supplies. Root output rose 8 percent to 18 million tons, largely because of Indonesia's drive to expand cassava exports to compensate for falling petroleum export revenues. Because of a recovery in Philippine coconut production and another record palm oil outturn in Indonesia, regional vegetable oil production and exports reached records of 3.4 million tons and 1.4 million tons, respectively.

With normal weather, the uptrend in regional cereal, root, and oil production is projected to continue through 1987/88. As a result, status quo import requirements are projected to remain near 1.9 million tons in each year. To meet nutrition-based requirements, significantly larger imports of 3.1 million tons and 3.2 million tons would be required in 1986/87 and 1987/88, respectively. Within the region, the Philippines accounts for the bulk of estimated import requirements, with Vietnam and Cambodia accounting for the remainder.

During 1985, the region's commercial import capacity markedly deteriorated. Export earnings fell in nearly all countries while debt service payments rose. The balance of payments positions throughout the region are projected to remain very tight in 1986 and 1987, with only Indonesia registering a positive, though declining, trade balance. However, lower projected import prices for cereals will likely offset much of the decline in availabilities of foreign exchange for food imports.

According to status quo estimates, Cambodia will account for all the region's additional cereal needs, which are projected at 14,000 tons in 1986/87. To achieve nutrition-based requirements for consumption and stock adjustments, additional needs of 359,000 tons are projected, 72 percent to Cambodia and the remainder to the Philippines for building food security stocks. Preliminary projections for 1987/88 indicate that the region's additional status quo needs will fall to zero, while nutrition-based additional needs, confined to Cambodia, fall to 233,000 tons.

Southeast Asia basic food data

Commodity	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
	1,000 tons			Thousand	Kilos
Major cereals					
1980/81	42,022	2,891	5,538	260,707	179
1981/82	45,589	3,858	4,011	266,846	184
1982/83	45,501	4,381	4,058	272,908	184
1983/84	49,380	3,683	4,956	278,935	196
1984/85	52,212	3,452	4,291	285,228	194
1985/86	52,365	4,676	3,486	291,763	193
1986/87	54,108	4,260		298,448	
1987/88	55,475	4,260		305,267	

Southeast Asia cereal use, additional needs to support consumption, and stock adjustment

Commodity/year	Total Use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
	1,000 tons	1,000 tons	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	61,311	60,038	14	3	258	47
1987/88	62,705	61,434	0	0	233	41
Stock adjustment						
1986/87			0	0	391	43
1987/88			0	0	0	0
Total						
1986/87			14	3	359	58
1987/88			0	0	233	41

CAMBODIA

Information on Cambodia's economy and food supply has been very limited since communist rule began in April 1975. Available indicators suggest that dry weather and seed shortages led to another reduced rice harvest of 882,000 tons in 1985/86. Corn output and cereal imports are estimated to have remained near the 1984/85 level, suggesting a further decline in per capita cereal supplies. Food supplies are estimated to provide only 80 percent of the FAO recommended minimum diet.

Because of the variable monsoon climate, input shortages, and continued guerilla warfare in the countryside, it is difficult to make accurate production projections. However, modest gains in rice and corn production are projected in 1986/87. To maintain status quo consumption, cereal imports of 125,000 tons are required. To achieve the FAO recommended minimum diet, cereal import needs of 369,000 tons are estimated. Despite lower projected per capita cereal availabilities, the status quo estimate of import requirements has declined from the 1985/86 estimate. The decline reflects falling per capita cereal supplies in recent years that have lowered average per capita cereal consumption from 192 to 174 kilograms. The substantially higher and increasing nutrition-based import requirement estimates indicate a deteriorating Cambodian diet. Assuming average weather and continued gains in rice and corn production, status quo and nutrition-based cereal import needs are projected to fall to about 92,000 tons and 347,000 tons, respectively, in 1987/88.

While complete financial data are not available, Cambodia's estimated commercial import capacity has been revised upward to $20 million and 110,000 tons, based on average outlays on commercial imports during 1982-1984 and lower projected world grain prices. Additional food needs to support status quo consumption are projected at 14,000 tons in 1986/87. Nutrition-based additional needs are projected significantly higher at 258,000 tons. Assuming normal weather, production gains are projected to lead to a small decline in additional food needs in 1987/88. Because Cambodia's ability to compensate for production shortfalls appears extremely limited, this assessment could quickly change as more information on actual 1986/87 production becomes available.

Cambodia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	1,045	0	162	1,157	0	203	Wheat	1.9
1981/82	854	50	180	1,059	0	183	Rice	72.9
1982/83	928	25	107	1,035	0	176	Corn	6.9
1983/84	1,151	25	185	1,336	0	223	Total	81.7
1984/85	957	25	85	1,042	0	170		
1985/86	962	25	85	1,047	0	168		
1986/87	985	25						
1987/88	1,040	25						

Import requirements for Cambodia

Commodity/Year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Cereal equivalent						
1986/87	985	1,110	1,354	125	369	458
1987/88	1,040	1,132	1,387	92	347	432

Financial indicators for Cambodia, actual and projected

Year	Exports	Imports	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
	FINANCIAL DATA NOT AVAILABLE					

Additional food needs to support consumption for Cambodia

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
1986/87	111	20	14	3	258	47
1987/88	114	20	0	0	233	41

INDONESIA

Cereal production is projected to rise about 4 percent in 1986/87 after declining marginally in 1985/86. Growth in rice production is expected to slow to only about 1 percent. Heavy rains in Sumatra, Java, Bali, and Sulawesi have been detrimental to the main rice crop and, because of the current rice surplus, there has been no increase in government support prices. However, production of corn is projected to rebound 20 percent to a record following a poor crop in 1985/86. Because of rapid growth in production, food security stocks of rice are at record levels despite a sharp decline in imports and 450,000 tons of rice exports in 1985/86. Continued strong growth is projected in production of cassava, an important food and export crop, as the Government seeks to expand export earnings. Further large gains are also expected in output and exportable supplies of palm oil and coconut oil, based on recent increases in producing area and average productivity.

With the outlook for further gains in cereal and cassava production, Indonesia's cereal import requirements continue to be estimated at zero in 1986/87 according to both the status quo and nutrition-based assessments. Recently achieved levels of per capita consumption of cereals, roots, and tubers provide approximately 107 percent of what is required to achieve the FAO/WHO recommended level of caloric intake.

Indonesia's availability of foreign exchange to import food commercially in 1986/87 is projected to fall 25 percent from the 1985/86 assessment. Earnings from petroleum exports, which account for about 70 percent of total exports, are expected to fall sharply because of lower world prices. Lower export earnings, coupled with substantially larger debt service obligations, currency devaluation, and slowed economic growth are likely to lead to reduced imports during 1986/87 and 1987/88. Despite Indonesia's deteriorating balance of payments outlook, commercial import capacity is expected to remain adequate to purchase all food import requirements because of declining import needs and prices. Additional food needs are assessed at zero in 1986/87 according to both the status quo and nutrition-based estimates. Additional food needs are also projected at zero in 1987/88 and, because of large food security stocks and adequate commercial import capacity, this assessment is unlikely to change in the event of a substantial production shortfall.

Indonesia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	24,154	1,012	3,519	25,607	1,045	181	Wheat	2.6
1981/82	26,795	2,033	1,867	26,988	1,121	186	Rice	58.5
1982/83	26,072	2,586	2,010	27,355	1,208	185	Corn	6.9
1983/84	29,093	2,105	2,921	30,407	1,439	203	Cassava	6.6
1984/85	31,221	2,273	1,722	30,320	1,559	199	Coconut oil	3.1
1985/86	31,087	3,337	988	30,712	1,677	198	Palm oil	1.6
1986/87	32,300	3,023					Palm kernel oil	0.3
1987/88	33,200	3,023						
							Total	79.6
Roots								
1980/81	13726	0	(986)	12,440	300	86		
1981/82	13301	0	(685)	12,356	260	84		
1982/83	12988	0	(490)	12,298	200	81		
1983/84	12103	0	(256)	11,607	240	75		
1984/85	14205	0	(1,050)	12,875	280	82		
1985/86	15400	0	(2,100)	12,980	320	81		
1986/87	16600	0						
1987/88	17100	0						
Vegetable oils								
1980/81	1,552	40	(172)	1,365	0	9		
1981/82	1,572	55	(262)	1,299	0	9		
1982/83	1,627	66	(354)	1,315	0	9		
1983/84	1,781	24	(117)	1,528	0	10		
1984/85	2,179	160	(771)	1,494	0	9		
1985/86	2,425	74	(759)	1,704	0	10		
1986/87	2,598	36						
1987/88	2,767	36						

Import requirements for Indonesia

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Major cereals						
1986/87	32,300	31,405	28,958	(895)	(3,342)	1,948
1987/88	33,200	32,081	29,592	(1,119)	(3,608)	1,778
Roots						
1986/87	16,600	13,913	13,904	(2,687)	(2,696)	(2,131)
1987/88	17,100	14,212	14,245	(2,888)	(2,855)	(2,320)
Cereal equivalent						
1986/87	38,591	36,678	34,227	(1,913)	(4,364)	441
1987/88	39,681	37,467	34,991	(2,214)	(4,690)	184
Vegetable oils						
1986/87	2,598	1,515	1,050	(1,083)	(1,548)	(733)
1987/88	2,767	1,547	1,081	(1,220)	(1,686)	(864)

Financial indicators for Indonesia, actual and projected

Year	Exports	Imports	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	21,795	12,624	1,759	5,392	20,036	4
1981	23,348	16,542	2,047	5,014	21,301	2
1982	19,747	17,854	2,247	3,144	17,500	2
1983	18,689	17,726	2,551	3,718	16,138	5
1984	20,754	15,254	3,247	4,773	17,507	2
1985	16,800	11,600	4,520	4,974	12,280	
1986	15,300	11,100	4,300	4,700	12,747	3
1987	16,000	11,000	4,915	4,500	12,659	3

Additional food needs to support consumption for Indonesia

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	2,523	308	0	0	0	0
1987/88	2,577	306	0	0	0	0
Vegetable oils						
1986/87	2	1	0	0	0	0
1987/88	2	1	0	0	0	0
Total						
1986/87		309		0		0
1987/88		307		0		0

LAOS

During 1985/86, good weather, higher procurement prices, and expanded extension activities resulted in increased fertilizer use, better weed control, and denser planting of rice. Production reached an estimated record 875,000 tons, up 12 percent from the 1984/85 harvest. Combined with imports of 20,000 tons, per capita rice availability rose, keeping average daily cereal supplies above those needed to achieve the FAO recommended minimum level of caloric intake.

Assuming average weather, modest gains in rice production are projected for 1986/87 and 1987/88. Domestic output probably will remain sufficient to meet both status quo and nutrition-based consumption levels. However, because Lao rice production is highly vulnerable to poor weather, this outlook could change significantly if rainfall is poor. Laos' weak financial position has lowered its commercial import capacity to about 65,000 tons, limiting its ability to offset a production shortfall.

Laos basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	684	0	50	734	0	212	Rice	71.9
1981/82	750	0	21	771	0	221	Total	71.9
1982/83	703	0	26	729	0	204		
1983/84	650	0	156	806	0	221		
1984/85	780	0	40	820	0	220		
1985/86	875	0	20	895	0	231		
1986/87	900	0						
1987/88	950	0						

Import requirements for Laos

Commodity/Year	Production	Total use Status quo	Total use Nutrition-based	Import requirements Status quo	Import requirements Nutrition-based	Import requirements Maximum
			1,000 tons			
Cereals						
1986/87	900	845	753	(55)	(147)	1
1987/88	950	865	774	(85)	(176)	(29)

Financial indicators for Laos, actual and projected

Year	Exports	Imports	Debt service	International reserves	Foreign exchange available Total	Foreign exchange available Share to major food imports
	Million dollars					Percent
1980	39	162	3	14	36	85
1981	28	125	7	13	21	133
1982	38	151	7	8	31	37
1983	50	167	7	19	43	27
1984	56	165	13	11	43	58
1985	60	178	21	12	39	
1986	63	190	23	13	37	40
1987	67	203	27	14	37	40

Additional food needs to support consumption for Laos

Commodity/year	Commercial import capacity Quantity	Commercial import capacity Value	Status quo Quantity	Status quo Value	Nutrition-based Quantity	Nutrition-based Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
1986/87	65	15	0	0	0	0
1987/88	67	15	0	0	0	0

THE PHILIPPINES

During 1985/86, food grain production increased by 3 percent to 9.2 million tons because of bumper rice and corn harvests. Largely because of area expansion, rice output rose 6 percent above 1984/85 to a record 5.6 million tons. Aside from some typhoon damage, good weather and the expectation of better prices following the removal of retail price ceilings likely encouraged farmers to expand rice plantings. The 1985/86 corn crop rebounded by 3 percent to match the 3.5 million-ton record of 1983/84. Greater use of hybrid seeds and fertilizer on larger farms combined with good weather to boost yields. The gains in food grain output allowed both a 23 percent cutback in imports to 1.2 million tons, and a slight rise in per capita cereal availabilities. Output of roots also probably benefited from good weather and trended upward, while copra output rebounded by nearly 35 percent to 1.9 million tons. However, low world prices discouraged a similar increase in coconut oil production, with output up only 11 percent from 1984/85.

With normal weather, steady growth in food grain output is projected through 1987/88. Rice and corn are expected to benefit from cheaper fertilizer and higher producer prices. With these gains, 1986/87 and 1987/88 status quo cereal import requirements are estimated to stay near actual 1985/86 imports of 1.2 million tons. To meet the FAO recommended minimum diet, cereal imports of about 1.8 million tons would be required in each year. To build cereal stocks to the recommended food security level, additional cereal imports of 390,000 tons are estimated in 1986/87. Further recovery of copra supplies will enable the Philippines to meet both status quo and nutrition-based consumption requirements, as well as achieve record export levels.

Current, but highly uncertain, balance of payments projections indicate that the Philippines' commercial import capacity will be adequate to finance all of its status quo import needs, and the bulk of its nutrition-based needs in

1986/87 and 1987/88. This assessment assumes that there will be further rescheduling of the Philippines' large external debt payments in both 1986 and 1987 to prevent a sharp drop in imports and allow for a build-up in critically low international reserves. After 3 years of decline, modest import growth is projected, but low prices for the Philippines' major exports dampen the outlook for significant growth in export earnings. The Government's large budget deficit presents a further need for balance of payment support and, without debt rescheduling, commercial food import capacity will be minimal. However, current forecasts, which include debt rescheduling and a projected drop in import prices, place the Philippines' commercial import capacity at about 1.9 million tons of cereals in 1986/87 and 2.4 million in 1987/88. Commercial capacity appears adequate to meet status quo import requirements and build stocks. However, additional needs of 101,000 tons are estimated to achieve both the FAO recommended diet and build stocks. Assuming normal weather and further debt rescheduling, no additional needs are projected in 1987/88 using either method.

Philippines basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	8,130	1,879	1,054	7,273	2,015	189	Rice	39.4
1981/82	8,560	1,775	1,132	7,577	2,120	192	Corn	9.4
1982/83	8,151	1,770	1,320	7,489	2,199	187	Wheat	5.4
1983/84	8,443	1,553	994	7,986	1,850	185	Cassava	5.7
1984/85	8,769	1,154	1,519	8,206	1,922	186	Coconut oil	3.3
1985/86	9,191	1,314	1,168	8,591	1,870	187	Sweet potato	2.6
1986/87	9,498	1,212					Total	65.7
1987/88	9,700	1,212						
Roots								
1980/81	3,265	0	0	3,265	0	66		
1981/82	3,024	0	0	3,024	0	60		
1982/83	1,970	0	0	1,970	0	38		
1983/84	2,084	0	0	2,084	0	39		
1984/85	2,450	0	0	2,450	0	45		
1985/86	2,625	0	0	2,625	0	47		
1986/87	2,800	0						
1987/88	3,000	0						
Vegetable oils								
1980/81	1,072	90	(914)	182	0	4		
1981/82	1,250	66	(1,047)	204	0	4		
1982/83	1,246	65	(949)	292	0	6		
1983/84	1,225	70	(1,020)	235	0	4		
1984/85	866	40	(586)	235	0	4		
1985/86	959	81	(655)	235	0	4		
1986/87	1,495	121						
1987/88	1,300	121						

Import requirements for Philippines

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Major cereals						
1986/87	9,498	10,538	10,804	1,040	1,306	2,151
1987/88	9,700	10,802	11,072	1,102	1,372	2,224
Roots						
1986/87	2,800	3,342	4,035	542	1,235	1,337
1987/88	3,000	3,426	4,141	426	1,141	1,241
Cereal equivalent						
1986/87	10,522	11,762	12,281	1,239	1,759	2,380
1987/88	10,798	12,056	12,588	1,258	1,790	2,411
Vegetable oils						
1986/87	1,495	243	760	(1,252)	(735)	(1,173)
1987/88	1,300	249	688	(1,051)	(612)	(970)

Financial indicators for Philippines, actual and projected

Year	Exports	Imports	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	7,997	10,348	1,668	2,846	6,329	5
1981	8,583	11,151	2,169	2,066	6,414	5
1982	8,004	11,690	3,050	888	4,954	7
1983	8,132	11,355	2,903	747	5,229	6
1984	8,374	9,656	3,438	602	4,936	7
1985	7,917	8,288	2,900	615	5,017	
1986	8,000	8,550	2,750	875	5,227	7
1987	8,400	9,200	2,860	1,735	6,309	7

Additional food needs to support consumption for Philippines, with stock adjustment

Commodity and year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	1,898	208	0	0	0	0
1987/88	2,356	251	0	0	0	0
Stock adjustment						
1986/87			0	0	391	43
1987/88			0	0	0	0
Total						
1986/87			0	0	101	11
1987/88			0	0	0	0
Vegetable oils						
1986/87	51	17	0	0	0	0
1987/88	67	20	0	0	0	0
Total						
1986/87		224		0		11
1987/88		271		0		0

1/ Surplus vegetable oil import capacity offsets some additional cereal needs.

VIETNAM

Cereal output in 1985/86 was off slightly, largely because dryness in the south and typhoon flooding in the north damaged the rice crop. Rice output fell 3 percent to about to 9.7 million tons. Per capita cereal availabilities fell despite a 30-percent increase in total wheat, rice, and corn imports to 1.3 million tons. Largely because of the drop in cereal output, exports of rice and corn remained at 75,000 tons.

With normal weather, rice and corn production are projected to resume an upward, but more modest trend in 1986/87 and 1987/88. Status quo estimates indicate import requirements of 491,000 tons in 1986/87 and 601,000 tons in 1987/88. To achieve the FAO recommended minimum diet, substantially higher cereal imports of 998,000 tons and 1.1 million tons would be required in 1986/87 and 1987/88, respectively.

Despite slower growth in domestic output and the deteriorating balance of payments situation in recent years, Vietnam appears financially capable of importing its food requirements, largely because of lower projected world cereal prices. However, in recent years, Vietnam's balance of payments deficit has been financed largely by sales of gold holdings and the accumulation of arrears on foreign debt service obligations. This situation is projected to continue in 1986/87 and 1987/88 in the absence of stronger export growth, but it will leave Vietnam with a very limited capacity to compensate for major production shortfalls.

Vietnam basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	8,009	0	753	8,762	0	160	Wheat	8.3
1981/82	8,630	0	811	9,441	0	168	Rice	58.8
1982/83	9,647	0	595	10,242	0	178	Corn	3.3
1983/84	10,043	0	700	10,743	0	182	Total	70.5
1984/85	10,485	0	925	11,410	0	189		
1985/86	10,250	0	1,225	11,475	0	185		
1986/87	10,425	0						
1987/88	10,585	0						

Import requirements for Vietnam

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	10,425	10,916	11,423	491	998	1,559
1987/88	10,585	11,186	11,694	601	1,109	1,695

Financial indicators for Vietnam, actual and projected

Year	Exports	Imports	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	537	1,296	242	98	295	41
1981	497	1,438	411	17	86	178
1982	641	1,469	220	17	421	31
1983	702	1,620	207	17	495	27
1984	763	1,828	189	12	574	23
1985	869	1,955	217	12	652	
1986	925	2,155	231	12	688	27
1987	1,020	2,340	255	12	757	27

Additional food needs to support consumption for Vietnam

Commodity and year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status-quo: Quantity	Status-quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
1986/87	1,622	182	0	0	0	0
1987/88	1,836	200	0	0	0	0

Latin America

Caribbean

The assessed status quo consumption needs for 1986/87 are lower by 40,000 tons than in May, mainly because of reduced needs in the Dominican Republic. This is offset by requirements for stock building, but total needs are still greatly lower in 1986/87 than a year earlier. Status quo additional food needs to support consumption and stock rebuilding in the region are assessed at 208,000 tons, compared with 365,000 in 1985/86. Nutrition-based needs are 330,000 compared with 410,000 in 1985/86. Both status quo and nutrition-based cereal needs have declined in all countries.

Cereal import requirements for the region are nearly the same as in 1985/86, but commercial import capacity has increased by 200,000 tons because of increased availability of foreign exchange and lower commodity prices.

Caribbean basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
	1,000 tons			Thousand	Kilos
Major cereals					
1980/81	852	99	979	13,743	131
1981/82	711	131	896	14,046	116
1982/83	790	115	935	14,355	121
1983/84	759	139	1,004	14,673	124
1984/85	761	95	1,087	14,918	124
1985/86	631	73	1,125	15,328	119
1986/87	691	74		15,700	
1987/88	684	74		16,084	

Caribbean cereal use, additional food needs to support consumption, and stock ajustment

Commodity/year	Total Use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
	1,000 tons	1,000 tons	1,000 tons	Million $	1,000 tons	Million $
Major cereals						
Consumption						
1986/87	2,340	2,374	132	18	254	35
1987/88	2,403	2,434	155	20	270	36
Stock adjustment						
1986/87			78	9	78	9
1987/88			41	4	41	4
Total						
1986/87			208	27	330	44
1987/88			196	24	310	40
Maximum absorbable						
Cereal equivalent						
1986/87			208	27	314	42
1987/88			196	24	305	39

DOMINICAN REPUBLIC

Food production in the Dominican Republic is expected to stay at its present level through 1988. Rice output was down in 1985/86 and is not expected to return to the higher levels of the early eighties. Dried beans may make up some of the shortfall. Plantains, bananas, and cassava are also major domestically produced food items, and production appears to be fairly stable. However, seasonal shortages can occur, as demonstrated in 1985/86.

Financial developments will probably have more influence on additional food needs than production. Real GDP declined 2.2 percent in 1985 and is projected to decline again in 1986.

Export earnings are projected to decline slightly in 1986/87, primarily because the government continues to de-emphasize production of sugar, the Dominican Republic's primary export. Imports, on the other hand, will probably increase, since prices of many foreign goods are less than domestically produced goods.

Throughout 1985, international reserves remained around $200 million, but may decline in 1986 unless timely aid packages are received.

Cereal import needs in status quo and nutrition-based terms, are expected to be 500,000 tons and 530,000 tons in 1986/87 and 1987/88, respectively. But commercial import capacity would cover about 409,000 tons in 1986/87 and 427,000 tons by 1987/88. Status quo additional food needs, including stock rebuilding, are calculated at 104,000 tons for 1986/87 and 111,000 for 1987/88, down from 156,000 in 1985/86.

Most of the increased import requirements reflect the need to rebuild stocks, which have been drawn down to abnormally low levels in recent months. Nutrition-based needs (including stock changes) are 148,000 tons and 144,000, respectively, for 1986/87 and 1987/88, but the maximum absorbable nutrition-based aid needs are slightly less.

Dominican Republic basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	299	86	363	438	180	109	Wheat	9.1
1981/82	334	130	315	478	195	115	Rice	20.8
1982/83	400	106	342	518	224	124	Corn	2.2
1983/84	374	106	440	540	309	138	Dry beans	3.5
1984/85	340	71	425	562	225	127	Cassava	1.7
1985/86	295	49	465	524	235	118	Plantains	8.6
1986/87	310	50					Bananas	3.6
1987/88	300	50					Milk	6.2
							Total	55.7
Roots								
1980/81	1,050	0	(10)	1,040	0	183		
1981/82	1,105	0	(21)	1,084	0	186		
1982/83	1,080	0	(12)	1,068	0	179		
1983/84	1,092	0	(26)	1,066	0	174		
1984/85	1,088	0	(25)	1,063	0	171		
1985/86	1,111	0	(30)	1,081	0	168		
1986/87	1,124	0						
1987/88	1,140	0						
Pulses								
1980/81	40	0	0	40	0	7		
1981/82	43	0	0	43	0	7		
1982/83	41	0	0	41	0	7		
1983/84	47	0	0	47	0	8		
1984/85	40	0	0	40	0	6		
1985/86	50	0	0	50	0	8		
1986/87	54	0						
1987/88	60	0						
Milk								
1980/81	350	0	0	350	0	61		
1981/82	350	0	0	350	0	60		
1982/83	352	0	0	352	0	59		
1983/84	353	0	0	353	0	58		
1984/85	350	0	0	350	0	56		
1985/86	350	0	0	350	0	54		
1986/87	350	0						
1987/88	350	0						

Import requirements for Dominican Republic

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	310	799	812	489	502	703
1987/88	300	818	831	518	531	735
Roots						
1986/87	1,124	1,160	1,136	36	12	216
1987/88	1,140	1,189	1,162	49	22	232
Cereal equivalent						
1986/87	623	1,122	1,122	499	499	709
1987/88	617	1,149	1,148	532	531	745
Pulses						
1986/87	54	46	60	(8)	6	(3)
1987/88	60	47	62	(13)	2	(8)
Milk						
1986/87	350	354	372	4	22	6
1987/88	350	355	374	5	24	7

Financial indicators for Dominican Republic, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	1,313	2,171	157	202	1,156	8
1981	1,524	2,123	234	225	1,291	10
1982	1,146	1,793	260	129	886	10
1983	1,249	1,885	225	171	1,024	10
1984	1,275	1,900	146	254	1,129	8
1985	1,275	1,900	165	210	1,110	
1986	1,250	1,950	211	180	1,020	9
1987	1,250	2,000	211	200	1,035	9

Additional food needs to support consumption for Dominican Republic, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	409	39	46	4	90	9
1987/88	427	40	71	7	104	10
Stock adjustment 1/						
1986/87			58	6	58	6
1987/88			40	4	40	4
Total						
1986/87			104	10	148	14
1987/88			111	10	144	13
Pulses						
1986/87	0	0	0	0	6	3
1987/88	0	0	0	0	2	1
Milk						
1986/87	7	9	0	0	16	20
1987/88	7	9	0	0	17	22
Total						
1986/87		48		10		37
1987/88		49		10		36
Maximum absorbable						
Cereal equivalent						
1986/87			104	10	132	13
1987/88			111	10	138	13
Pulses						
1986/87			0	0	0	0
1987/88			0	0	0	0
Milk						
1986/87			0	0	0	0
1987/88			0	0	0	0
Total						
1986/87				10		13
1987/88				10		13

1/ Commercial import capacity surplus to additional food needs in individual commodity groups offsets some additional cereal needs.

HAITI

Haiti remainsthe poorest country in Latin America, with a significant portion of the population not having adequate diets. Per capita income was calculated at $350 in 1985.

Haiti's domestic food production has been declining for some time, and hit a new low in 1985/86 with declines in corn and dried bean production. However, cereal production is projected to increase in the next 2 years, and roots to remain at current levels. Imported rice and wheat continue to be principal supplements to domestic production of corn, rice, cassava, and pulses.

In recent years, Haiti has shown marginal economic growth of 1.8 percent, but short of population growth of 1.9 percent. While foreign exchange available for food purchases is down, reduced cereal prices give rise to greater commercial import capacity. Commercial import capacity for 1986/87 is estimated at 186,000 tons, 32,000 greater than in 1985/86. Status quo needs decreased from 139,000 tons in 1985/86 to 104,000 tons in 1986/87.

Commercial import capacity is projected to increase slightly in 1987/88 to 195,000 tons, reducing status quo and nutrition-based needs to 85,000 tons and 166,000 tons respectively.

Haiti will probably build up stocks in 1986/87 because of large stock drawdowns in 1985/86.

Haiti basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	537	0	202	589	150	127	Wheat	12.2
1981/82	368	0	165	463	70	90	Rice	8.1
1982/83	380	0	177	502	65	94	Corn	6.4
1983/84	375	24	183	503	75	94	Sorghum	8.6
1984/85	411	10	260	597	60	105	Dry beans	3.7
1985/86	325	10	260	567	80	101	Chickpeas	2.7
1986/87	370	10					Cassava	4.3
1987/88	370	10					Total	46.0
Roots								
1980/81	250	0	0	250	0	43		
1981/82	252	0	4	256	0	43		
1982/83	250	0	7	257	0	43		
1983/84	255	0	5	260	0	42		
1984/85	250	0	5	255	0	41		
1985/86	260	0	5	265	0	41		
1986/87	260	0						
1987/88	260	0						
Pulses								
1980/81	58	0	0	58	0	10		
1981/82	65	0	13	78	0	13		
1982/83	65	0	15	80	0	13		
1983/84	64	0	11	75	0	12		
1984/85	64	0	20	84	0	13		
1985/86	56	0	20	76	0	12		
1986/87	65	0						
1987/88	90	0						

Import requirements for Haiti

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	370	639	699	269	329	512
1987/88	370	648	708	278	338	524
Roots						
1986/87	260	271	340	11	80	47
1987/88	260	275	344	15	84	51
Cereal equivalent						
1986/87	440	712	791	272	350	518
1987/88	440	722	801	282	361	530
Pulses						
1986/87	65	82	122	17	57	28
1987/88	90	83	128	(7)	38	4

Financial indicators for Haiti, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	309	501	21	16	288	21
1981	246	536	21	24	225	34
1982	278	492	16	4	262	21
1983	295	519	15	9	280	18
1984	315	550	17	13	297	21
1985	295	520	0	6	295	
1986	305	510	19	6	285	20
1987	310	500	19	6	289	20

Additional food needs to support consumption for Haiti, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	186	30	85	14	164	27
1987/88	195	31	84	13	166	26
Stock Adjustment						
1986/87			18	3	18	3
1987/88			0	0	0	0
Total						
1986/87			104	17	182	30
1987/88			85	13	166	26
Pulses						
1986/87	1	0	17	10	56	34
1987/88	1	0	0	0	38	24
Total						
1986/87		31		27		64
1987/88		31		13		50
Maximum absorbable						
Cereal equivalent						
1986/87			104	17	182	30
1987/88			85	13	166	26
Pulses						
1986/87			17	10	27	16
1987/88			0	0	3	2
Total						
1986/87				27		46
1987/88				13		29

JAMAICA

Jamaica was devastated by flooding from torrential rains in May and June, which may have affected food supplies. Output of corn, yams, and sweet potatoes will probably increase in 1986/87 and 1987/88 compared with 1985/86. General economic growth and foreign exchange considerations have more impact on food needs than agricultural production. Wheat and most corn are imported. Jamaica's real GDP declined 4.4 percent in 1985 and the economy is expected to decline again in 1986.

International reserves picked up to $130 million at the close of 1985, as Jamaica acquired new loans. Merchandise exports are projected to increase slightly even though bauxite has faded from the export picture. Tourism remains strong, taking up some of the slack. Jamaica also has kept up debt service payments. Jamaica now has neither status quo nor nutrition-based additional food needs, compared with 70,000 and 11,000 tons, respectively, in 1985/86.

Jamaica basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	16	13	414	250	192	197	Wheat	22.2
1981/82	9	1	416	222	195	182	Rice	8.1
1982/83	10	9	416	231	195	183	Corn	2.4
1983/84	10	9	381	231	155	162	Yams & sweet potatoes	6.3
1984/85	10	14	402	255	157	170		
1985/86	11	14	400	251	160	166	Total	39.1
1986/87	11	14						
1987/88	14	14						
Roots								
1980/81	184	0	0	184	0	82		
1981/82	150	0	0	150	0	66		
1982/83	120	0	0	120	0	51		
1983/84	137	0	0	137	0	58		
1984/85	150	0	0	150	0	62		
1985/86	150	0	0	150	0	61		
1986/87	150	0						
1987/88	150	0						

Import requirements for Jamaica

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	11	456	408	445	397	540
1987/88	14	479	429	465	415	564
Roots						
1986/87	150	156	161	6	11	66
1987/88	150	164	168	14	18	77
Cereal equivalent						
1986/87	60	507	461	446	401	557
1987/88	63	532	484	469	421	585

Financial indicators for Jamaica, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	1,422	1,678	201	105	1,221	9
1981	1,500	1,961	397	85	1,103	11
1982	1,371	1,925	259	109	1,112	8
1983	1,332	1,789	207	63	1,125	9
1984	1,360	1,797	286	97	1,075	8
1985	1,350	1,850	250	130	1,100	
1986	1,375	1,850	282	100	1,093	8
1987	1,400	1,850	287	100	1,113	8

Additional food needs to support consumption for Jamaica

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	473	71	0	0	0	0
1987/88	495	72	0	0	0	0

Central America

Central America cereal production decreased 2 percent in 1985/86, with El Salvador and Honduras harvesting very poor crops. Losses were largest in El Salvador, where a 6-percent decline in corn production offset increases in rice.

Central American food aid needs are largely due to financial factors, rather than production problems or basic nutritional shortfalls. Preliminary estimates for 1985 show only 0.5 percent growth in GDP and a decline of 2 percent in per capita terms. External debt burden in the Central American region remained extremely heavy in spite of debt rescheduling, lower interest rates, and lower oil prices. Increasing coffee prices late in 1985 provided some temporary relief, however.

Status quo additional food needs are calculated as 800,000 tons for 1986/87, with El Salvador (26 percent) and Costa Rica (20 percent) accounting for the bulk. The nutrition-based calculations estimate Central America cereal import needs at 900,000 million tons, with Guatemala taking 38 percent.

The import and export data for the Central American countries have been revised to include trade in other goods and services to reflect the importance of nonmerchandise trade in the balance of payments. Debt service payments have been lowered from 20 percent of total exports in 1985 to 16 percent in 1986 and 1987. After these revisions, commercial food import capacity for 1986 has been revised upward by 6 percent from the previous forecast. However, about 10 percent of the region's status quo cereal import needs, and 43 percent of the nutrition-based needs would have to be additional food needs in 1986/87. Additional food needs are forecast to increase to 31 percent of import needs in 1987/88 using the status quo approach, and nutrition-based needs would decline to 41 percent of import needs.

Central America basic food data

Commodity/year	Actual or cast production	Beginning stocks	Net imports	Population	Per capita total use
	--------1,000 tons	-------		Thousand	Kilos
Major cereals					
1980/81	2,456	418	708	20,344	157
1981/82	2,670	409	502	20,759	160
1982/83	2,518	353	661	21,327	158
1983/84	2,656	338	677	21,905	161
1984/85	2,838	389	633	22,547	166
1985/86	2,789	493	745	23,230	174
1986/87	2,853	485		23,912	
1987/88	2,980	485		24,614	

Central America cereal use, additional food needs to support consumption, and stock adjustment

Commodity/year	Total Use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
	1,000 tons	1,000 tons	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	3,628	3,761	198	30	392	55
1987/88	3,735	3,880	233	34	368	49
Stock adjustment						
1986/87			64	10	51	7
1987/88			19	4	16	2
Total						
1986/87			239	37	443	62
1987/88			250	37	380	51
Maximum absorbable						
Cereal equivalent						
1986/87			239	37	427	59
1987/88			250	37	365	49

COSTA RICA

Because of some revisions in the historical production and utilization data for Costa Rica's grain, food grain production for 1985/86 and 1986/87 is estimated at 224,000 and 220,000 tons, respectively. Rice has been Costa Rica's principal food grain product, accounting for about two-thirds of total cereal output. The Government of Costa Rica continued to change its rice program by removing the subsidy that had made farm level rice prices nearly triple the world market price and had caused surplus production. Removal of the subsidy was an attempt to align production with domestic needs.

Total status quo import requirements for cereal in 1985/86 and 1986/87 are estimated at 160,000 tons each year. These requirements are up 50 percent from the previous estimate, largely because of the commitment to reduce rice production.

The nutrition-based import requirement has been increased from 44,000 tons to 118,000 tons because of lower cereal output.

The estimate of Costa Rica's commercial import capacity has been increased some because of debt rescheduling. The Government renewed economic stabilization efforts during 1985 and concluded a new IMF standby agreement in March 1985. The program included further attempts to reduce the balance of payments deficit and external arrears. Costa Rica is currently benefiting from the high coffee export prices, lower petroleum import prices, and foreign capital inflows. But it is not certain how long these will continue. Moreover, the outlook beyond 1986 is clouded by the specifics of the new administration's economic program. Food aid continues to be a critical factor in Costa Rica's economic recovery. Because of the downward revision in debt service payments, Costa Rica's commercial capacity appears ample to cover all status quo and nutrition-based import needs in both 1986/87 and 1987/88.

Costa Rica basic food data

							1979-81	
Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	Commodity coverage	Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	179	67	108	230	70	129	Wheat	11.0
1981/82	209	54	97	261	70	139	Rice	13.5
1982/83	173	29	197	273	70	140	Corn	11.2
1983/84	256	56	120	274	70	136	Total	35.6
1984/85	233	88	145	280	70	135		
1985/86	224	116	145	305	70	141		
1986/87	220	110						
1987/88	230	110						

Import requirements for Costa Rica

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	220	376	338	156	118	171
1987/88	230	386	347	156	117	171

Financial indicators for Costa Rica, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	1,219	1,897	205	146	1,014	6
1981	1,200	1,636	197	131	1,003	6
1982	1,143	1,446	138	226	1,005	2
1983	1,173	1,526	595	311	578	10
1984	1,271	1,622	322	405	950	3
1985	1,351	1,630	320	506	1,031	
1986	1,450	1,680	300	600	1,262	5
1987	1,480	1,730	300	600	1,278	5

Additional food needs to support consumption for Costa Rica

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	306	39	0	0	0	0
1987/88	319	40	0	0	0	0

EL SALVADOR

Cereal output is estimated at 663,000 and 680,000 tons, respectively, for 1985/86 and 1986/87, nearly 5 percent below the previous estimate. The corn and sorghum harvests are lower than expected because of heavy rains in November 1985. However, large beginning stocks should cover the crop shortfall enough to satisfy consumption requirements. All of the wheat consumed in El Salvador is imported, and makes up the status quo and nutrition-based cereal import requirements, which are estimated at 211,000 tons and 300,000 tons, respectively, for 1986/87 and 1987/88. In 1985 El Salvador's gross domestic product increased for the second consecutive year, at 1.6 percent. Continued growth in U.S. economic assistance was a major factor in the increase.

Trade data for El Salvador has been revised to include other goods and services to reflect the importance of nonmerchandise trade in the availability of foreign exchange. Debt service payments have been maintained at about 20 percent of total exports for 1986 and 1987. After these revisions, commercial food import capacity for 1986 is estimated at $80 million, nearly 40 percent above the previous forecast. International reserves remain at a dangerously low level, however.

Status quo additional food needs are estimated at $17 million in 1986/87, down almost 40 percent from the 1985/86 value of additional food needs. Similarly, the total value of nutrition-based additional food needs is down 15 percent to $29 million. In 1987/88, grain production is not expected to keep pace with demand. This added demand will probably result in an 18-percent increase in status quo additional needs and an estimated 10-percent increase in nutrition-based additional needs.

El Salvador basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	697	98	148	630	199	176	Wheat	8.7
1981/82	664	114	149	643	194	182	Rice	3.5
1982/83	552	90	179	572	193	163	Corn	39.7
1983/84	586	56	226	565	194	158	Sorghum	1.8
1984/85	699	112	145	603	186	160	Dry beans	3.8
1985/86	663	167	195	586	273	168	Total	57.6
1986/87	680	166						
1987/88	680	166						
Pulses								
1980/81	40	9	1	44	0	9		
1981/82	38	6	2	46	0	10		
1982/83	38	0	13	51	0	11		
1983/84	42	0	0	42	0	9		
1984/85	48	0	10	58	0	12		
1985/86	50	0	10	60	0	12		
1986/87	55	0						
1987/88	55	0						

Import requirements for El Salvador

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Major cereals						
1986/87	680	891	973	211	293	277
1987/88	680	918	1,001	238	321	306
Pulses						
1986/87	55	53	54	(2)	(1)	17
1987/88	55	55	56	(0)	1	19

Financial indicators for El Salvador, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	1,271	1,289	42	78	1,229	5
1981	970	1,281	48	72	923	5
1982	872	1,196	68	109	804	4
1983	908	1,217	156	160	752	5
1984	955	1,300	194	166	761	5
1985	971	1,318	256	180	715	
1986	995	1,337	125	200	835	5
1987	1,025	1,340	129	200	861	5

Additional food needs to support consumption for El Salvador, with stock adjustment, and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent 1/						
Consumption						
1986/87	80	11	122	17	204	29
1987/88	85	12	144	20	232	32
Stock adjustment						
1986/87			6	1	6	1
1987/88			5	1	5	1
Total						
1986/87			129	18	210	29
1987/88			149	20	237	32
Pulses						
1986/87	2	1	0	0	0	0
1987/88	2	1	0	0	0	0
Total						
1986/87		12		18		29
1987/88		13		20		32
Maximum absorbable						
Cereal equivalent						
1986/87			129	18	194	27
1987/88			149	20	221	30
Pulses						
1986/87			0	0	0	0
1987/88			0	0	0	0
Total						
1986/87				18		27
1987/88				20		30

1/ Commercial import capacity surplus to additional food needs in individual commodity groups offsets some additional cereal needs.

GUATEMALA

Guatemala's cereal production is estimated at 1.2 million tons in 1986/87, down marginally from the previous estimate. A 9-percent increase in grain output is projected for 1987/88, mostly because of anticipated increases in corn.

Status quo estimates indicate that about 187,000 tons of grain imports will be needed in 1986/87 to maintain per capita consumption at previous levels. Nutrition-based estimates call for 338,000 tons of cereal imports.

Guatemala's economy has declined in recent years. The forecast for 1986 is another year of declining growth and further reductions in the average Guatemalan's standard of living. Preliminary estimates show some improvements in Guatemala's commercial import capacity, mostly because of increased coffee exports. Foreign reserves reached $301 million, the highest since 1980. Guatemala, however, still faces large debt service payments. Nevertheless, status quo food imports are zero in 1986/87 and 1987/88. But if consumption were to increase to an adequate nutrition-based level, the country would need 129,000 tons of cereal equivalent valued at $19 million in 1986/87. Because commercial import capacity is expected to increase in 1987/88, nutrition-based needs could decrease to 62,000 tons valued at $9 million.

Guatemala basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	944	152	193	1,008	163	165	Wheat	9.7
1981/82	1,034	118	80	964	179	154	Corn	45.2
1982/83	1,141	89	79	979	175	151	Dry beans	4.4
1983/84	1,099	155	107	1,018	203	156	Total	59.3
1984/85	1,144	140	138	1,068	219	159		
1985/86	1,149	135	150	1,071	225	156		
1986/87	1,153	138						
1987/88	1,260	138						
Pulses								
1980/81	58	10	18	86	0	12		
1981/82	84	0	6	88	0	12		
1982/83	89	2	0	90	0	12		
1983/84	85	1	6	92	0	12		
1984/85	95	0	4	99	0	12		
1985/86	100	0	4	104	0	13		
1986/87	105	0						
1987/88	105	0						

Import requirements for Guatemala

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum
	1,000 tons					
Major cereals						
1986/87	1,153	1,340	1,491	187	338	456
1987/88	1,260	1,380	1,545	120	285	396
Pulses						
1986/87	105	102	102	(3)	(3)	12
1987/88	105	105	104	0	(1)	15

Financial indicators for Guatemala, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	1,834	2,107	45	445	1,789	3
1981	1,526	2,190	60	150	1,466	4
1982	1,312	1,774	103	112	1,210	5
1983	1,205	1,460	141	210	1,064	5
1984	1,261	1,667	196	274	1,065	5
1985	1,330	1,750	200	301	1,130	
1986	1,390	1,800	135	350	1,407	5
1987	1,410	1,900	137	400	1,464	5

Additional food needs to support consumption for Guatemala, with stock adjustment

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Major cereals 1/						
Consumption						
1986/87	187	27	0	0	129	19
1987/88	200	28	0	0	62	9
Stock adjustment						
1986/87			32	5	32	5
1987/88			0	0	5	1
Total						
1986/87			10	1	161	23
1987/88			0	0	67	9
Pulses						
1986/87	4	3	0	0	0	0
1987/88	4	3	0	0	0	0
Total						
1986/87		30		1		23
1987/88		31		0		9

1/ Surplus pulse import capacity offsets some cereal import needs.

HONDURAS

Honduras' cereal supply shrank 9 percent in 1985/86 as corn production alone declined 7 percent. Total output of rice and sorghum at 60,000 tons and 40,000 tons, respectively, was also disappointing.

Some modest gains in Honduras' cereal production are expected for 1986/87 and 1987/88, because the corn harvest may rise 6 percent in both years due to an increase in planted area. While remaining the poorest country in Central America with 1985 per capita gross domestic product estimated at $800, Honduras has evidenced some improvement in economic performance with a 3-percent increase in real GDP. However, even with improvements in 1984 and 1985, very serious economic problems remain.

Status quo based estimates suggest that 102,000 tons of cereal imports are needed in 1986/87, and 120,000 tons in 1987/88. With a commercial import capacity of only 51,000 tons of grain equivalent in 1986/87, the status quo based calculations brings the additional food needs to 49,000 tons and 64,000 tons in 1986/87 and 1987/88. Nutrition-based needs are calculated at 59,000 tons in 1986/87 and 75,000 tons in 1987/88.

Honduras basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	393	72	142	410	125	142	Wheat	6.1
1981/82	487	72	104	432	130	145	Corn	41.1
1982/83	385	101	90	411	120	133	Dry beans	4.3
1983/84	417	45	114	397	130	128	Total	51.5
1984/85	506	49	90	395	175	134		
1985/86	472	75	125	461	140	137		
1986/87	500	71						
1987/88	500	71						
Pulses								
1980/81	36	0	3	39	0	10		
1981/82	43	0	(2)	41	0	11		
1982/83	45	0	1	46	0	11		
1983/84	44	0	0	44	0	11		
1984/85	50	0	0	50	0	12		
1985/86	50	0	0	50	0	11		
1986/87	55	0						
1987/88	55	0						

Import requirements for Honduras

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	500	602	610	102	110	182
1987/88	500	620	629	120	129	201
Pulses						
1986/87	55	51	56	(4)	1	2
1987/88	55	53	58	(2)	3	4

Financial indicators for Honduras, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	968	1,306	98	150	869	5
1981	903	1,233	117	101	786	5
1982	784	1,042	149	112	635	3
1983	810	1,081	122	114	688	4
1984	887	1,210	135	128	752	2
1985	890	1,140	150	106	740	
1986	920	1,240	150	127	771	3
1987	940	1,250	150	129	791	3

Additional food needs to support consumption for Honduras, with stock adjustment

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Major cereals						
Consumption						
1986/87	51	6	49	6	59	7
1987/88	54	7	64	8	75	9
Stock adjustment						
1986/87			13	2	13	2
1987/88			3	0	3	0
Total						
1986/87			62	8	72	9
1987/88			67	8	77	9
Pulses						
1986/87	0	0	0	0	1	1
1987/88	0	0	0	0	2	2
Total						
1986/87		7		8		10
1987/88		7		8		11

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NICARAGUA

Information on Nicaragua's food production and supply continues to be very limited. Rice and corn harvests in 1986/87 showed an estimated increase of 12 and 9 percent, respectively, due to good weather. With projected gains in cereal production in 1987/88, import needs of 119,000 tons and 121,000 tons will be needed to maintain status quo consumption in 1986/87 and 1987/88, respectively.

Nicaragua is still in financial difficulty in the wake of war and structural transformation of the economy. Central government deficits and foreign exchange shortages continue to increase. The 1986 and 1987 trade deficit is estimated at about $520 million for each year. Thus, financial factors may limit Nicaragua's ability to pay for its food import requirements.

Nicaragua has the capacity to purchase an estimated 91,000 tons of cereal commercially in 1986/87 and 96,000 tons in 1987/88, with a value of $24 and $25 million, respectively. Because of the fragile economic situation and the increase in the debt service payment, status quo additional food needs are calculated at 26,000 tons of cereal valued at $7 million in 1986/87 and 1987/88. Using the nutrition-based approach the country would not need additional food aid.

Nicaragua basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	243	29	117	357	0	148	Wheat	4.0
1981/82	276	51	72	374	0	151	Rice	12.6
1982/83	267	44	116	415	0	163	Corn	27.7
1983/84	298	26	110	434	0	165	Dry beans	5.7
1984/85	256	0	115	371	0	137	Total	50.0
1985/86	281	0	130	411	0	148		
1986/87	300	0						
1987/88	310	0						
Pulses								
1980/81	39	7	8	51	0	21		
1981/82	55	3	0	51	0	21		
1982/83	60	7	0	53	0	21		
1983/84	59	14	(10)	54	0	21		
1984/85	60	9	0	61	0	23		
1985/86	60	8	0	60	0	22		
1986/87	60	8						
1987/88	60	8						

Import requirements for Nicaragua

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	300	419	348	119	48	205
1987/88	310	431	358	121	48	208
Pulses						
1986/87	60	60	46	0	(14)	11
1987/88	60	62	47	2	(13)	12

Financial indicators for Nicaragua, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	514	1,017	82	64	432	10
1981	582	1,158	161	111	421	18
1982	456	978	163	171	293	19
1983	470	993	82	184	388	14
1984	465	1,000	59	125	406	14
1985	485	990	70	100	415	
1986	490	1,000	115	100	283	16
1987	505	1,020	118	100	290	16

Additional food needs to support consumption for Nicaragua, with stock adjustment

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Major cereals						
Consumption						
1986/87	91	24	26	7	0	0
1987/88	96	25	25	6	0	0
Stock adjustment						
1986/87			13	3	0	0
1987/88			9	2	0	0
Total						
1986/87			39	10	0	0
1987/88			34	9	0	0
Pulses						
1986/87	1	1	0	0	0	0
1987/88	1	1	1	0	0	0
Total						
1986/87		25		10		0
1987/88		25		9		0

South America

The Andean countries--Peru, Bolivia, Ecuador and Colombia--had some shortfalls in grain production in 1985/86, but early indications are for improved crops in 1986/87.

Foreign debt problems continue, particularly in Bolivia and Peru, which have foregone debt repayment in recent years. Bolivia, Peru, and Ecuador have declining export earnings because of falling petroleum prices, which preclude use of petroleum exports as a source of revenue for debt repayment. All, however, are enjoying windfall export earnings from coffee in 1986.

All but Bolivia are realizing some economic growth, but population growth is nearly matching GDP so no real gain is occurring for most people. Despite the poor economic health of some countries, South America has no status quo additional food needs. Because of the chronic shortage of calories, however, additional nutrition-based needs, including those required for stock adjustments, total 295,000 tons in 1986/87 and 218,000 tons in 1987/88. Nearly all of the nutrition-based food needs are in Bolivia.

South America basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Population	Per capita total use
	---------1,000 tons--------			Thousand	Kilos
Major cereals					
1980/81	3,898	1,016	2,589	55,803	116
1981/82	4,452	1,056	2,552	57,032	122
1982/83	4,536	1,099	2,496	58,319	122
1983/84	4,056	1,037	2,808	59,657	118
1984/85	4,793	864	2,286	61,046	113
1985/86	4,651	1,061	2,585	62,486	115
1986/87	4,713	1,051		63,955	
1987/88	4,745	1,051		65,460	

South America cereal use, additional food needs to support consumption, and stock adjustment

Commodity/year	Total Use		Additional needs			
	Status quo	Nutrition-based	Status quo		Nutrition-based	
			Quantity	Value	Quantity	Value
	1,000 tons	1,000 tons	1,000 tons	Million $	1,000 tons	Million $
Major cereals						
Consumption						
1986/87	10,321	10,347	0	0	229	30
1987/88	10,565	10,567	0	0	197	25
Stock adjustment						
1986/87			78	10	116	16
1987/88			45	6	45	6
Total						
1986/87			0	0	295	40
1987/88			0	0	218	27
Maximum absorbable						
Cereal equivalent						
1986/87			0	0	190	26
1987/88			0	0	118	15

BOLIVIA

Poor economic performance continues to plague Bolivia, one of the poorest countries in South America. The tradeoff between debt repayment and the building of foreign reserves is crucial in the calculation of Bolivia's additional food needs in 1986. As foreign reserves build, Bolivia's commercial import capacity would improve, cutting additional aid needs. As long as Bolivia does not fully pay its foreign debt, reserves are higher than they otherwise would be. Last year, Bolivia paid $425 million (65% of export earnings) even though principal and interest payments of $628 million became due. Bolivian officials recently announced that they would pay $210 million (half of this year's projected export earnings). Even so, foreign reserves were lower at the close of 1985 than a year earlier.

The collapse in the world tin and petroleum markets will be detrimental to Bolivia's foreign exchange earnings in 1986, limiting the possibility of debt repayment. Bolivia began renegotiations of foreign debt repayments in May. Bolivia has kept on its payments to the IMF, but suspended debt payments to private bankers in 1984, after export earnings declined rapidly. Bolivia's total debt is reported to be $5.1 billion, with $1.1 billion held by private banks.

Internally, Bolivia may be facing its sixth year of declining real income. In 1985, Bolivia's real GDP declined 2.1 %. Since 1980, per capita real GDP has declined by 30 percent. Bolivia had the highest rate of inflation in the world in 1985, but inflation eased in early 1986.

The Government of Bolivia has attempted to improve the economic climate by setting the official exchange rate at a level consistent with free markets forces, and has reduced import tariffs. Foreign exchange is allocated according to a bidding sales system performed by the Bolivian Central Bank. The Government has also reduced the public sector workforce. Other policy changes include the setting of retail prices for flour for bread baking and pasta. On the import side, the Government is the sole importer of wheat, a change from when private firms were also officially permitted to import wheat.

Production of some major food products declined in 1985/86. Potatoes were down in late 1985, but a larger corn crop was offsetting. Some crops were lost in the spring flooding of Lake Titicaca, cutting back on potato, quinoa, and barley production, and making 9,500 families homeless. Because Bolivia has chosen to not fully pay its principal arrears, which would exhaust reserves if they were fully paid, calculations show that Bolivia has no additional food needs. Because diets are chronically below FAO's recommended minimum, Bolivia has 229,000 tons of grain equivalent nutrition-based needs (including stock adjustment) in 1986/87 and 218,000 tons in 1987/88.

Bolivia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	509	77	261	529	225	141	Wheat	21.5
1981/82	642	93	151	461	360	150	Rice	5.2
1982/83	576	65	210	450	360	144	Corn	13.3
1983/84	420	41	294	422	310	127	Cassava	3.7
1984/85	694	23	250	506	410	156	Potatoes	8.2
1985/86	747	51	250	552	470	170	Total	51.8
1986/87	730	26						
1987/88	735	26						
Roots								
1980/81	1,006	0	0	1,006	0	188		
1981/82	1,180	0	0	1,180	0	215		
1982/83	1,124	0	0	1,124	0	200		
1983/84	442	0	0	442	0	77		
1984/85	940	0	0	940	0	160		
1985/86	1,026	0	0	1,026	0	170		
1986/87	1,002	0						
1987/88	1,020	0						

Import requirements for Bolivia

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	730	911	1,155	181	425	383
1987/88	735	933	1,182	198	447	403
Roots						
1986/87	1,002	1,177	1,180	175	178	326
1987/88	1,020	1,205	1,208	185	188	340
Cereal Equivalent						
1986/87	997	1,224	1,469	227	472	395
1987/88	1,006	1,253	1,503	247	497	418

Financial indicators for Bolivia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	1,058	1,232	280	106	778	5
1981	1,028	1,354	281	100	747	9
1982	921	1,059	287	156	634	8
1983	882	1,138	282	160	600	9
1984	837	1,104	320	252	517	10
1985	813	1,099	628	200	185	
1986	764	1,102	246	200	526	9
1987	825	1,098	265	200	568	9

Additional food needs to support consumption for Bolivia, with stock adjustment, and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	270	35	0	0	202	26
1987/88	300	38	0	0	197	25
Stock adjustment						
1986/87			28	4	28	4
1987/88			21	3	21	3
Total						
1986/87			0	0	229	30
1987/88			0	0	218	27
Maximum absorbable						
Cereal equivalent						
1986/87			0	0	125	16
1987/88			0	0	118	15

COLOMBIA

The upturn in international coffee prices will pull Columbia out of the economic slump that it has been in during the early eighties. Early estimates forecast export earnings to increase $1.2 billion to $3 billion from coffee earnings alone. Already, $800 million of these earnings are earmarked for payment of the $15-billion external debt, and farm level coffee prices have increased. Colombia has been strictly a commercial market for agricultural products since 1972, and at this juncture has a healthy export sector and a relatively stable domestic economy. Colombia's income growth measured 2 percent last year, but is expected to reach 4 percent in 1986. However, continues to limit imports, but has increased its import quota from $250 million to $300 million a month in 1986.

In the farm economy, food supplies are mostly adequate. Colombia, however, has suspended rice exports because the current crop plus stocks was only sufficient to meet domestic demand for the first half of 1986. July-December export licenses are also being denied. In early 1986, hard frost cut back the potato crop. There is an upturn in corn production compared with last year, but increased prices also attracted contraband from neighboring Venezuela and Ecuador. Yucca, a traditional food, is finding a new use as chips in livestock feed. Likewise, rice is finding strong demand in the brewing industry. Colombia has made some policy changes, which include lowering import duties for agricultural inputs, and reducing the indirect income tax rebates that are applied to minor imports, although cotton is still one of the highest.

Because of the relative strength of Colombia's economy, there are no nutrition-based additional food needs or status quo needs.

Colombia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	2,130	668	445	2,613	78	108	Wheat	5.5
1981/82	2,121	552	622	2,682	65	109	Rice	15.2
1982/83	2,287	548	612	2,893	60	115	Corn	11.7
1983/84	2,109	494	624	2,782	6	107	Plantains	8.0
1984/85	2,038	439	600	2,555	10	97	Milk	4.5
1985/86	2,114	512	665	2,714	8	101	Potatoes	4.8
1986/87	2,151	569					Total	49.6
1987/88	2,170	569						
Roots								
1980/81	4,413	0	(36)	4,377	0	176		
1981/82	3,860	0	(160)	3,700	0	147		
1982/83	4,149	0	(27)	4,122	0	161		
1983/84	4,081	0	(31)	4,050	0	155		
1984/85	4,053	0	(27)	4,026	0	152		
1985/86	4,138	0	(34)	4,104	0	152		
1986/87	4,450	0						
1987/88	4,250	0						
Milk								
1980/81	2,342	0	10	2,352	0	95		
1981/82	2,553	0	10	2,563	0	103		
1982/83	2,798	0	46	2,844	0	115		
1983/84	2,941	0	50	2,991	0	120		
1984/85	3,090	0	25	3,115	0	125		
1985/86	3,128	0	63	3,191	0	128		
1986/87	3,164	0						
1987/88	3,175	0						

Import requirements for Colombia

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	2,151	2,920	2,386	769	235	1,116
1987/88	2,170	2,972	2,427	802	257	1,154
Roots						
1986/87	4,450	4,406	4,193	(44)	(257)	397
1987/88	4,250	4,485	4,222	235	(28)	684
Cereal equivalent						
1986/87	3,485	4,242	3,652	756	167	1,100
1987/88	3,451	4,318	3,704	867	253	1,215
Milk						
1986/87	3,164	3,140	3,093	(24)	(71)	8
1987/88	3,175	3,155	3,106	(20)	(69)	12

Financial indicators for Colombia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	5,860	6,231	573	4,831	5,287	6
1981	5,015	7,217	836	4,801	4,179	8
1982	4,973	8,198	1,108	3,861	3,865	8
1983	4,103	7,270	1,246	1,901	2,858	12
1984	5,303	6,745	1,312	1,364	3,991	8
1985	5,479	6,612	1,705	2,067	3,775	
1986	6,162	6,516	1,449	2,595	5,230	9
1987	6,022	6,583	1,416	2,595	5,102	9

Additional food needs to support consumption for Colombia

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent 1/						
Consumption						
1986/87	1,878	261	0	0	0	0
1987/88	1,884	255	0	0	0	0
Milk						
1986/87	14	19	0	0	0	0
1987/88	14	19	0	0	0	0
Total						
1986/87		281		0		0
1987/88		274		0		0

1/ Surplus milk import capacity offsets some cereal import needs.

ECUADOR

Ecuador, which depends heavily on earnings from petroleum, is weathering the economic downturn that resulted from the collapse in the international petroleum market. Real economic growth settled at 3.2 percent in 1985, keeping pace with the population growth of 2.9 percent. A real GDP growth of 2.7 percent, however, is forecast for 1986.

Agriculture is one of the bright spots in Ecuador's economy. Record corn, sorghum, and palm oil crops are forecast and production of rice and soybeans is promising, offsetting the short potato crop of early 1986.

Except for soft corn, most corn is used for poultry and shrimp feed. Despite increased government support prices, Ecuador's wheat production remains stagnant and imports are the primary source of bread quality wheat flour. Rice and potatoes are the key food staples from domestic production. Ecuador's agricultural policy includes the discontinuing of official prices for basic commodities, privatizing the major part of government storage, and establishing a national agricultural commodity exchange.

The downturn in petroleum prices will affect Ecuador's foreign trade potential, since nearly two-thirds of the country's export earnings come from petroleum. Ecuador will benefit from higher export coffee prices and increased banana exports, but they will probably not match the losses in petroleum. Despite the downturn, Ecuador has met obligations on its $7-billion foreign debt. Ecuador's commercial import capacity is sufficient to cover import requirements, so there are neither status quo nor nutrition-based additional food needs.

Ecuador basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	453	71	322	524	171	87	Wheat	9.9
1981/82	533	151	254	575	197	94	Rice	12.7
1982/83	468	166	285	590	207	94	Corn	1.4
1983/84	429	122	368	579	241	94	Potatoes	3.2
1984/85	577	74	343	636	238	98	Cassava	2.8
1985/86	527	120	412	636	255	97	Plantains	5.4
1986/87	614	128					Milk	7.9
1987/88	560	128					Total	43.2
Roots								
1980/81	1,246	0	0	1,246	0	156		
1981/82	1,324	0	20	1,344	0	164		
1982/83	1,453	0	0	1,453	0	172		
1983/84	1,484	0	0	1,484	0	171		
1984/85	1,456	0	0	1,456	0	163		
1985/86	1,424	0	0	1,424	0	155		
1986/87	1,482	0						
1987/88	1,480	0						
Milk								
1980/81	758	0	9	767	0	96		
1981/82	765	0	10	775	0	97		
1982/83	893	0	12	905	0	113		
1983/84	931	0	15	946	0	118		
1984/85	946	0	0	946	0	118		
1985/86	987	0	0	987	0	123		
1986/87	1,000	0						
1987/88	1,000	0						

Import requirements for Ecuador

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	614	906	933	292	319	356
1987/88	560	932	948	372	388	435
Roots						
1986/87	1,482	1,542	1,626	60	144	340
1987/88	1,480	1,585	1,658	105	178	393
Cereal equivalent						
1986/87	1,044	1,354	1,405	310	361	385
1987/88	990	1,392	1,430	402	440	478
Milk						
1986/87	1,000	998	1,006	(2)	6	4
1987/88	1,000	1,001	1,009	1	9	7

Financial indicators for Ecuador, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	2,976	3,647	559	1,013	2,416	6
1981	3,000	4,027	922	632	2,078	6
1982	2,734	3,949	1,107	304	1,627	8
1983	2,688	2,816	529	645	2,159	6
1984	2,972	3,240	991	611	1,981	6
1985	3,179	3,246	1,773	718	1,406	
1986	2,834	3,317	1,693	570	1,141	7
1987	3,166	3,494	1,544	550	1,572	7

Additional food needs to support consumption for Ecuador, with stock adjustment, and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1986/87	334	52	0	0	27	4
1987/88	473	71	0	0	0	0
Stock adjustment						
1986/87			0	0	38	6
1987/88			0	0	0	0
Total						
1986/87			0	0	65	10
1987/88			0	0	0	0
Milk						
1986/87	3	4	0	0	4	5
1987/88	4	5	0	0	1	2
Total						
1986/87		56		0		15
1987/88		77		0		2
Maximum absorbable						
Cereal equivalent						
1986/87			0	0	65	10
1987/88			0	0	0	0
Milk						
1986/87			0	0	2	3
1987/88			0	0	0	0
Total						
1986/87				0		13
1987/88				0		0

PERU

Peru has chronic food shortages and has been on the brink of economic disaster for some time. Chronic malnutrition in children under 5, for example, appears to be only slightly improved from 1972. Economically, Peru has not yet fully recovered from the El Nino disaster of 1983.

Production of basic food crops is down in 1985/86 and may have some repercussions in 1986/87. Peru is having its second consecutive shortfall in rice. The drought that persisted during October–January resulted in insufficient water for irrigation in the north coast during the critical planting period. Peru has already had to import 140,000 tons of milled rice before the main crop harvest in August. Moreover, another 150,000 tons will be needed in late 1986 to supplement the short supplies expected in early 1987 because of the poor 1986 crop. In early 1986, Peru already had shortages of potatoes, poultry, and sugar. In March, Lake Titicaca underwent one of its cyclical floods, affecting about 25,000 families on 15,000 hectares of farmland where potatoes, barley, quinoa, and rye are cultivated.

Because Peru has endured several years of economic problems, it has drawn down stocks of major staples. In addition to rice imports, Peru's import plan for 1986 includes foreign exchange allocations for 1.175 million tons of wheat (compared with actual imports of 875,000 tons last year), 308,000 tons of corn, and 20,000 tons of potatoes.

The weather has outweighed the effects of government policy this year. The Garcia Government has increased guaranteed prices for basic agricultural commodities and is providing more credit at low real interest rates. A special agricultural fund ($235 million) is being established in agrarian banks from moneys supplied by the Central Bank. Other government policy changes include reestablishment of the government monopoly on import of wheat and feedgrains. Subsidization of basic foodstuffs has also increased.

Peru's decisions on the repayment of its $14–billion foreign debt determine its food import requirements. If Peru did meet its foreign debt obligations, food aid requirements would balloon. Peru will most likely meet some. On April 28, Peru made a token payment of $17.7 million to commercial banks, but is up–to–date on World Bank loans. Peru has promised to pay arrears to IMF by August 15. The latter is crucial for deciding whether IMF will continue to lend to Peru this next year. At the close of 1985, Peru's international reserves were $1.8 billion, mostly reflecting delayed repayment of foreign debt. Peru still maintains a positive trade balance, but that is tempered by the large debits on services. Export earnings may improve despite the decline in petroleum revenues. Coffee export earnings will take up some slack, possibly accounting for 10 percent of the total in 1986. Anchovies have returned to Peru's offshore fishing grounds, providing increased export potential for fish meal. Most metals are depressed, although in 1985, Peru increased its iron ore exports to Japan and Korea.

There is some pickup in general economic activity. In 1986, Peru's real GDP is forecast to grow 4 percent after a 1.7-percent increase in 1985. Even so, the Peruvian economy has not yet returned to the pre-El Nino level of economic activity. In 1985, per capita income dropped to an estimated $867 (other official estimates put the level even lower), about the same as the mid-1960's. Inflation, measured by the consumer price index, rose 138 percent in 1985, but has since moderated. From last December through May, retail prices increased 24 percent but have moderated since. This is mostly the result of a comprehensive price freeze instituted in July, 1985. The moderate economic growth in 1985 and 1986 has added to the demand for the basic commodities.

As long as Peru continues its current policy of building foreign reserves in lieu of paying off foreign debt, its commercial import capacity will cover its import needs. As a result, there is neither a status quo aid need nor a nutrition-based aid need. If Peru chose to pay its debt, as presently scheduled, it would require up to 400,000 tons of status quo aid needs and more if nutrition-based needs were included.

Peru basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	--------------------	1,000 tons	--------------------			Kilos		Percent
Major cereals								
1980/81	806	200	1,561	1,856	451	131	Wheat	17.7
1981/82	1,156	260	1,525	2,121	500	145	Rice	11.3
1982/83	1,205	320	1,389	1,934	600	136	Corn	9.7
1983/84	1,098	380	1,522	2,122	550	139	Potatoes	6.6
1984/85	1,484	328	1,093	2,034	493	128	Cassava	2.7
1985/86	1,263	378	1,258	2,053	518	127	Plantains	2.9
1986/87	1,218	328					Total	50.9
1987/88	1,280	328						
Roots								
1980/81	2,190	0	(50)	2,140	0	121		
1981/82	2,452	0	(50)	2,402	0	133		
1982/83	2,511	0	0	2,511	0	135		
1983/84	1,991	0	0	1,991	0	104		
1984/85	2,222	0	0	2,222	0	113		
1985/86	2,140	0	20	2,160	0	107		
1986/87	2,204	0						
1987/88	2,205	0						

Import requirements for Peru

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum
	1,000 tons					
Major cereals						
1986/87	1,218	2,787	2,851	1,569	1,633	1,851
1987/88	1,280	2,867	2,936	1,587	1,656	1,875
Roots						
1986/87	2,204	2,465	3,270	261	1,066	1,149
1987/88	2,205	2,536	3,352	331	1,147	1,244
Cereal equivalent						
1986/87	1,859	3,501	3,820	1,642	1,961	2,004
1987/88	1,921	3,602	3,929	1,681	2,008	2,051

Financial indicators for Peru, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	Million dollars					Percent
1980	4,851	4,923	1,779	1,979	3,072	11
1981	4,223	6,112	2,199	1,199	2,024	16
1982	4,186	5,962	1,856	1,350	2,330	14
1983	3,842	4,933	1,113	1,365	2,729	15
1984	3,974	4,409	992	1,630	2,982	11
1985	3,966	4,135	2,601	1,827	1,365	
1986	3,626	4,134	1,363	1,827	2,778	13
1987	3,814	4,150	1,434	1,827	2,890	13

Additional food needs to support consumption for Peru

Commodity/year	Commercial import capacity: Quantity	Commercial import capacity: Value	Status quo: Quantity	Status quo: Value	Nutrition-based: Quantity	Nutrition-based: Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent Consumption						
1986/87	2,260	289	0	0	0	0
1987/88	2,419	300	0	0	0	0

Glossary of terms

Status quo	A measure of per capita food availability in recent years.
Nutrition-based	Per capita food availability sufficient to meet internationally accepted minimum caloric standards
Cereal equivalent	Cereal required to meet both cereal shortfalls and cereal equivalent (caloric basis) shortfalls in roots and tubers
Import requirement	Imports necessary to achieve either status quo or nutrition-based food availability, including both commercial and concessional food shipments
Tons	Metric tons
Dollars	U.S. dollars unless otherwise specified
GNP	Gross national product
GDP	Gross domestic product

APPRAISING ADDITIONAL FOOD NEEDS

Many factors could be considered in appraising approaches to distributing P.L. 480 concessional food supplies among countries. These range from quantitative factors such as measures of relative needs, to more qualitative factors such as recipient countries' efforts to maintain budgetary discipline and to implement self-help policies encouraging greater local production.

A detailed discussion and comparison of qualitative factors lies beyond the scope of this study as it is currently defined. This section offers one simple quantitative method for comparing food needs across countries. Additional food needs are calculated in per capita terms and countries are ranked according to the magnitude of per capita needs. This per capita ranking of needs provides a measure of the relative severity of additional food needs across countries. The analysis presented here merely represents possible distributions and is not to be construed as a decision on food allocation.

Several countries with the same absolute level of additional food needs have quite different per capita needs. The wide margin between per capita measures reflects differences in the severity of the food problems these countries face and the manner in which the problem has been addressed. 1/

The pronounced disparity between the status quo and nutrition-based results also points up the differences inherent in the two procedures. Countries like Cape Verde, Chad, Haiti, and Lebanon rank high in both status quo and nutrition-based per capita food needs. As a general rule, this means that food availability has in the recent past been sustained near the level needed to achieve the FAO recommended minimum diet, either by commercial imports that are no longer affordable, or by food aid. Cape Verde, Chad, and Haiti have long been recipients of food aid. Lebanon continues to lack earlier commercial import capacity.

1/ Adjustments were made in both the status quo and nutrition-based indicators to compensate for the different proportion of the diet made up by the staples analyzed in the report. The percentage of the diet covered--derived from the 1979-81 FAO Food Balance Sheets--must be factored into the estimates to prevent biasing per capita aid needs upward or downward for countries with a large or small proportion of their diets made up of the staples analyzed. Other things being equal, a country with 75 percent of its staple diet covered would have a greater per capita additional food need than a country with 50 percent of its staple diet covered. To incorporate this adjustment, per capita food needs are calculated as follows: estimated additional food need ($)/(Percent of diet comprised by commodities analyzed in this report/group mean percent of diet covered)/population.

Countries like Burundi, Comoros, Mali, and Somalia have per capita nutrition-based needs much higher than status quo needs. This wide margin indicates a serious gap between recent per capita food intake levels and the supplies needed to meet FAO recommended minimum caloric levels. This gap has not been filled in the recent past by commercial imports, or by food aid.

Countries like Egypt, Lebanon, Nicaragua, and Tunisia have per capita status quo needs much higher than nutrition-based needs. In these countries, domestic production, commercial imports, or food aid donations have pushed per capita intake levels close to or above the FAO minimum. Food assistance to these countries using the status quo estimates would support consumption above the FAO recommended minimum.

Twenty one countries have neither status quo nor nutrition-based additional food needs. Twenty-seven have no nutrition-based needs in 1986/87, compared with only 13 in the World Food Needs assessment for 1984/85.

Per capita additional food needs expenditures, 1986/87

Country	Per capita Status quo		Per capita Nutrition-based	
	Dollars	Rank	Dollars	Rank
Angola	1.40	35	1.96	38
Benin	0.00	68	0.00	66
Botswana	0.00	60	0.00	62
Burkina	0.82	38	3.30	34
Burundi	1.89	32	38.22	3
Cameroon	0.22	43	0.00	60
Cape Verde	66.82	1	40.09	2
Central Afr. Rep.	0.73	40	2.93	35
Chad	9.40	9	28.19	6
Comoros	4.10	25	28.67	5
Congo	0.00	49	0.00	58
Djibouti	6.56	16	0.00	56
Egypt	18.63	4	0.00	54
Equatorial Guinea	7.00	15	0.00	52
Ethiopia	4.65	22	13.99	14
Gambia	5.74	17	5.74	30
Ghana	0.00	62	0.00	46
Guinea	5.25	20	18.37	13
Guinea-Bissau	0.00	61	0.00	57
Kenya	5.72	19	20.51	11
Lebanon	31.86	2	24.51	9
Lesotho	3.41	27	9.10	23
Liberia	9.49	7	13.81	15
Madagascar	0.00	52	0.00	63
Malawi	1.70	33	6.51	26
Mali	4.63	23	25.57	7
Mauritania	8.30	12	9.96	22
Mauritius	0.00	57	0.00	67
Morocco	0.00	67	0.00	61
Mozambique	9.36	10	24.53	8
Niger	4.25	24	9.07	24
Rwanda	2.53	28	21.72	10
Senegal	0.00	59	0.00	49
Sierra Leone	0.54	41	0.00	59
Somalia	5.73	18	49.40	1
Sudan	0.00	58	0.00	43
Swaziland	0.00	55	0.00	45
Tanzania	2.44	29	1.02	40
Togo	1.17	36	4.67	32

Per capita additional food needs expenditures, 1986/87 (continued)

Country	Per capita Status quo		Per capita Nutrition-based	
	Dollars	Rank	Dollars	Rank
Tunisia	14.83	5	0.97	41
Uganda	0.00	56	6.47	27
North Yemen	8.00	14	4.00	33
South Yemen	22.42	3	19.37	12
Zaire	0.94	37	2.27	36
Zambia	0.00	66	12.03	20
Zimbabwe	0.00	47	0.00	47
Afghanistan	8.56	11	2.11	37
Bangladesh	1.69	34	3.28	25
India	0.00	65	0.00	65
Indonesia	0.00	51	0.00	51
Cambodia	0.78	39	12.21	19
Laos	0.00	53	0.00	53
Nepal	2.03	30	10.65	21
Pakistan	0.00	44	0.00	55
Philippines	0.00	63	0.40	42
Sri Lanka	1.93	31	1.03	39
Vietnam	0.00	45	0.00	44
Bolivia	0.00	46	12.69	18
Colombia	0.00	48	0.00	48
Cost Rica	0.00	50	0.00	50
Dominican Republic	3.68	26	13.60	16
Ecuador	0.00	54	4.97	31
El Salvador	8.04	13	12.95	17
Guatemala	0.27	42	6.12	28
Haiti	12.20	6	28.93	4
Honduras	4.87	21	6.08	29
Jamaica	0.00	64	0.00	64
Nicaragua	9.45	8	0.00	68
Peru	0.00	69	0.00	69

Ranked difference in per capita additional food needs, 1986/87

Country	Status quo	Nutrition-based	Difference	Rank
		Dollars		
Somalia	5.73	49.40	-43.67	1
Burundi	1.89	38.22	-36.33	2
Comoros	4.10	28.67	-24.58	3
Mali	4.63	25.57	-20.94	4
Rwanda	2.53	21.72	-19.18	5
Chad	9.40	28.19	-18.79	6
Haiti	12.20	28.93	-16.72	7
Mozambique	9.36	24.53	-15.16	8
Kenya	5.72	20.51	-14.78	9
Guinea	5.25	18.37	-13.12	10
Bolivia	0.00	12.69	-12.69	11
Zambia	0.00	12.03	-12.03	12
Cambodia	0.78	12.21	-11.43	13
Dominican Republic	3.68	13.60	-9.93	14
Ethiopia	4.65	13.99	-9.34	15
Nepal	2.03	10.65	-8.61	16
Uganda	0.00	6.47	-6.47	17
Bangladesh	1.69	8.03	-6.34	18
Guatemala	0.27	6.12	-5.85	19
Lesotho	3.41	9.10	-5.69	20
Ecuador	0.00	4.97	-4.97	21
El Salvador	8.04	12.95	-4.91	22
Niger	4.25	9.07	-4.82	23
Malawi	1.70	6.51	-4.81	24
Liberia	9.49	13.81	-4.32	25
Togo	1.17	4.67	-3.50	26
Burkina	0.82	3.30	-2.47	27
Central Afr. Rep.	0.73	2.93	-2.20	28
Mauritania	8.30	9.96	-1.66	29
Zaire	0.94	2.27	-1.32	30
Honduras	4.87	6.08	-1.22	31
Angola	1.40	1.96	-0.56	32
Philippines	0.00	0.40	-0.40	33
Colombia	0.00	0.00	0.00	34
Morocco	0.00	0.00	0.00	35
Ghana	0.00	0.00	0.00	36
Laos	0.00	0.00	0.00	37
Mauritius	0.00	0.00	0.00	38
Sudan	0.00	0.00	0.00	39
Zimbabwe	0.00	0.00	0.00	40
Peru	0.00	0.00	0.00	41
Pakistan	0.00	0.00	0.00	42
Benin	0.00	0.00	0.00	43
Cost Rica	0.00	0.00	0.00	44
Guinea-Bissau	0.00	0.00	0.00	45
India	0.00	0.00	0.00	46

Ranked difference in per capita additional food needs, 1986/87 (continued)

Country	Status quo	Nutrition-based	Difference	Rank
Senegal	0.00	0.00	0.00	47
Indonesia	0.00	0.00	0.00	48
Swaziland	0.00	0.00	0.00	49
Vietnam	0.00	0.00	0.00	50
Madagascar	0.00	0.00	0.00	51
Botswana	0.00	0.00	0.00	52
Gambia	5.74	5.74	0.00	53
Jamaica	0.00	0.00	0.00	54
Congo	0.00	0.00	0.00	55
Cameroon	0.22	0.00	0.22	56
Sierra Leone	0.54	0.00	0.54	57
Sri Lanka	1.93	1.03	0.90	58
Tanzania	2.44	1.02	1.42	59
South Yemen	22.42	19.37	3.06	60
North Yemen	8.00	4.00	4.00	61
Afghanistan	8.56	2.11	6.45	62
Djibouti	6.56	0.00	6.56	63
Equatorial Guinea	7.00	0.00	7.00	64
Lebanon	31.86	24.51	7.35	65
Nicaragua	9.45	0.00	9.45	66
Tunisia	14.83	0.97	13.86	67
Egypt	18.63	0.00	18.63	68
Cape Verde	66.82	40.09	26.73	69

METHODOLOGICAL NOTES

Calculating Food Needs

This report provides two measures of total consumption of major food staples and corresponding estimates of security stock levels for food grains. The framework used for calculating that portion of such consumption which may not be met by domestic production or commercial imports, total and by commodity, is outlined below in algebraic form. These unmet food requirements are henceforth referred to as additional food needs. All quantities in the report are in thousand metric tons and all values are in millions of U.S. dollars.

The first step in the process of calculating additional food needs is to estimate import requirements to support consumption:

$$IRC = DR - PR. \quad (1)$$

where:

IRC = import requirements to support consumption.

DR = total domestic requirements (total use).

PR = forecast total domestic production (ERS).

Import requirements should not be confused with forecasts of imports for two important reasons. First, the factors that determine actual total use (domestic requirements) may be much different than those used in deriving the status quo and nutrition-based estimates of total requirements used in this report. The only demand factor that governs import requirements is population growth. As such, equation (1) above is merely a gap between forecast production and two measures of consumption (described below) that are purposely derived in such a way as to be directly comparable across a wide range of countries. Second, production is implicitly assumed to be independent of import requirements as defined above, whereas actual imports and production are certainly related.

Stocks are held constant. A discussion of the food security adjustment for stocks appears below.

The second step in the procedure separates the import requirement into the portion that may be purchased commercially and the portion that may be unmet. Estimates of additional food needs are the differences between total import requirements and those imports that a country can afford to purchase commercially in world commodity markets, herein referred to as the commercial import capacity:

$$AFNC = IRC - CIC \quad (2)$$

where:

AFNC = additional food needs to support consumption.

CIC = commercial import capacity.

The last step in estimating additional food needs involves adding an estimated stock adjustment to additional food needs to support consumption:

(3) $AFNT = AFNC + SA$

where: $AFNT$ = total additional food needs.

SA = stock adjustment.

Commodity Coverage

The commodities included in the food needs assessment for each country were selected to cover the important food staples in the diet in each country. An attempt was made to include at least two-thirds of the average daily caloric intake in each country to ensure that assumptions regarding domestic food availability and requirements in each country are representative of the total food supply situation. For a few countries, less than two-thirds of the diet is covered. This is due either to great diversity in the average diet; to limited availability of current, reliable data; or to both. Coverage is more complete in Asian and African countries where relatively few food staples account for the bulk of the average diet, and less complete in Latin American countries, where diets are more diversified. The specific commodities included in the food needs assessment for each country and their share in daily per capita caloric intake are listed in the tables.

Food Substitution Assumption

Assumptions regarding the substitutability of foods in the diet are necessary in assessing food needs because shortages in some food items can be compensated for by surpluses or imports of others. Also, some food items that figure prominently in diets in low-income countries, particularly roots and tubers, are not commonly traded and, therefore, are not available to fill import and additional food requirements.

In this report, all cereals (including wheat, milled rice, and coarse grains) are considered substitutable on a one-for-one basis. Roots and tubers (cassava, potatoes, bananas, and plantains are also included) are assumed substitutable for cereals on a caloric equivalent basis. The treatment of pulses depends on their importance and role in the diet.

Calculation of Import Requirements

Import requirements are reported in the text for individual countries in quantity only. Additional food needs appear as both quantities and values. The generic calculations for import requirements and additional food needs are based on the following variables:

$AFNCQ$ = additional food needs to support consumption, quantity;

$AFNCV$ = additional food needs to support consumption; value;

IRCQ = food import requirements to support consumption, quantity;

CICV = commercial food import capacity, value; and

CICQ = commercial food import capacity, quantity.

The following subscripts are added to the above: t denotes total additional food needs and import requirements for an individual country (value only); j denotes one of four major commodity groupings; k denotes the number of major commodity groups included for a single country; and i denotes individual commodities within one of the major groups.

The general framework for calculating $IRCV_t$, $IRCV_k$, and $IRCQ_k$ is as follows:

$$(4) \quad IRCV_t = \sum_{j=1}^{k} IRCV_k;$$

subject to

$$IRCV_j > 0$$

$$(5) \quad IRCV_j = IRCQ_j * IUV_j$$

where IUV = estimated import unit values in dollars (see section below on import unit value calculations); and for the cereal equivalent group only):

$$(6) \quad IRCQ_j = \sum_{i=1}^{n} (IRCQ_i * WE_i)$$

where:

WE = wheat-equivalent conversion factors for a commodity if the commodity is a noncereal and is assumed to be substitutable for cereals on a caloric-equivalent basis. If a commodity group is not substitutable with cereals (ie., vegetable oils, milk, pulses) then $IRCQ_j$ is not converted to a wheat equivalent.

The procedures used for calculating IRCQ in status quo and nutrition-based estimates are described in separate sections below. The common structure for both of these IRCQ calculations is as follows:

$$(7) \quad IRCQ_i = DR_i - PR_i$$

$$(8) \quad DR_i = DRNF_i + DRF_i$$

where:

DR = domestic requirement (quantity);

DRNF = domestic requirement for nonfeed use (quantity);

DRF = domestic requirement for feed use (quantity; see section below on calculating feed use).

The procedure for calculating $CICV_t$ is:

$$(9) \quad CICV_t = \sum_{j=1}^{k} CICV_j$$

The method of calculating $CICV_j$ and $CICQ_j$ is described in a separate section below.

The following points should be noted on the treatment and interpretation of negative values in import requirements and additional food needs calculations:

A negative import requirement for a commodity group in quantity and value terms ($IRCQ_j < 0$, $IRCV_j < 0$) implies a 'surplus' in domestic production above what is needed to support consumption. The surplus is, by definition, not substitutable for any shortfalls in any of the other commodity groups. For example, a surplus vegetable oil import requirement may not offset a deficiency in grains.

While the above negative values, where they occur, are carried in the tables containing estimates of import requirements to support consumption, they are factored in as zeros when calculating additional food needs to support consumption for that commodity group ($AFNCQ_j$, $AFNCV_j$), and in calculating country total import requirements ($IRCV_t$) and additional food needs (FAN_t). Inclusion of the negative value would imply exports of the calculated surplus (and an addition to commercial import capacity). If the country is a traditional exporter of the surplus commodity, the impact of the export earnings on additional food needs is already accounted for in the commercial import capacity calculation. If the country is not a traditional exporter of the surplus commodity, imposition of an export requirement for the purpose of food need calculations would be an unnecessarily rigid means of assessment.

When a negative additional food need value occurs for a commodity group ($AFNCV_j < 0$), this calculated surplus is made to offset any positive additional food need ($AFNCV_j > 0$) for other commodity groups in that country. This is appropriate because of conditions imposed on the calculating of additional food needs for commodity groups ($AFNCQ_j$, $AFNCV_j$) described above. Negative unmet food need values imply a surplus of estimated commercial import capacity in a food group; the surplus can appropriately be diverted to purchases in another food group without violating the assumption that one food group cannot substitute for another. These situations are footnoted in the country tables.

Negative country additional food need totals imply a surplus in commercial import capacity ($CICV_t$), over and above what imports are needed to support consumption in all commodity groups ($IRCV_t$) in the country. They do not imply food available for export commercially or concessionally. Such negative values, when they occur, are shown as zeros in the additional food need tables. However, $AFNCV_t$, whether positive or negative, is the value used in the additional food need rankings provided in the section of this report entitled "Appraising Additional Food Needs."

With estimates derived in this way, the larger the gap between domestic food availabilities and food requirements, or the smaller the capacity to import food commercially, the larger the additional food need. Other things being equal, gains in domestic production or lower levels of feed use will reduce estimated import requirements and these additional food needs to support consumption. To the extent that the food staples selected for a country are judged to be substitutable, any estimated food surpluses are applied to filling the gap for commodities estimated to be in deficit. Also, for any commodity group where a surplus commercial import capacity exists, that surplus is applied to any estimated deficits for other commodity groups. No allowance is made for the effects of stock adjustments, positive or negative, on import requirements or additional food needs. The need for stock adjustments and their impact on additional food needs are estimated separately, as described in the following sections.

Calculating Status Quo Import Requirements

Status quo import requirements for a particular country, commodity, and year are calculated, following equation (7) in the previous section, as:

$$(10)\quad IRCQ = (DRNF + DRF) - (PR)$$

where DRF and PR are as defined elsewhere. Status quo estimates of domestic requirements for nonfeed use (DRNF) are calculated as:

$$(11)\quad DRNF = P^{*}PCC_B/100$$

where:

P = population in millions;

PPC = per capita nonfeed consumption of a commodity in kilograms per year; and

subscript B = the base period years for which PPC is averaged.

One or more years of unusually low (or unusually high) per capita food availability during the base period will raise (lower) import requirements. A simple average of the most recent 4 years gives a per capita food availability which fluctuates sharply. To stabilize estimates of per capita food availability, they are calculated as the mean of the most recent 4 years that deviate less than one standard deviation from the mean of the most recent 8 years of record.

Calculating Nutrition-based Import Requirements

The general form of the nutrition-based import requirement equation is the same as shown in (7) above. However, because the nutrition-based method uses a fixed minimum consumption norm rather than the status quo, it is necessary to assess domestic availabilities and domestic nonfeed requirements on a net basis--net of milling, seed, waste, and nonfood use. With these adjustments, the nutrition-based import requirement calculations for a particular country, commodity, and year are as follows:

$$(12)\quad \mathrm{IRCQ} = [(\mathrm{DRNF}_m - \mathrm{DA}_{,}]/\mathrm{MR}) + \mathrm{DRF}$$

$$(13)\quad \mathrm{DRNF}_m = (\mathrm{PCCAL}_B/\mathrm{PCCAL}_{TB})^*(\mathrm{RMPCCAL}_T)^*(\mathrm{CALCF}_m)^*(365) {}^*(P)/1000$$

$$(14)\quad \mathrm{DA}_m = [(\mathrm{PR})^*(1 - (\mathrm{NFUR} + \mathrm{WR} + \mathrm{AUR})) - (\mathrm{SR} * \mathrm{PR}) - \mathrm{DRF}]^*(\mathrm{MR})^*(1 - \mathrm{NFUR}_m + \mathrm{WR}_m)$$

The variables IRCQ, DRNF, DRF, P, and PR have been described elsewhere. The new variables in the nutrition-based equation are:

DA = domestic availability;

MR = milling/extraction rate of a particular commodity (source: FAO);

DRF = feed use as calculated in the section below;

The subscript m indicates a variable expressed in milled (extracted) terms;

PCCAL = daily per capita consumption of a particular commodity in calories (source: FAO and ERS; see notes below);

RMPCCAL = recommended minimum total daily caloric intake (source: FAO);

CALCF = kilograms per capita, assumes base period average caloric intake (source: FAO);

NFUR = average rate of utilization for nonfood purposes for a particular commodity during 1979-81 (source: FAO);

WR = rate of waste for a particular commodity (source: FAO);

AUR = average rate of use of alcoholic beverages manufactured from a particular commodity during 1971-81 (source: FAO); and

SR = average rate of seed use from domestic production for a particular commodity during 1979-81 (source: FAO).

Thus, in the nutrition-based method, domestic requirements for nonfeed use (DRNF) in milled/extracted terms are calculated by first determining commodity caloric shares in the total diet in a base period and, on the basis of those shares, determining the per capita caloric amounts needed to achieve the FAO recommended minimum. These per capita daily caloric estimates are then converted to annual countrywide requirements in terms of tons of milled commodity. Domestic availability (DA) is calculated in milled terms by adjusting coarse domestic production (PR) for nonfood use, waste, alcoholic beverage use, and seed use, and milling/extraction losses using rates derived from the FAO food balances. Import requirements in coarse terms are then computed as the unmilled difference between the domestic requirement for nonfeed use (DRNF) and domestic availability (DA) plus requirements for feed use (DRF). It is important to note that the import requirement estimates derived from this procedure do not allow for reductions for waste, nonfood use, or alcoholic beverage and seed use from imported commodities; only reductions for feed use and milling/extraction are accommodated.

The appropriate measure of coarse domestic production (PR) for the nutrition-based method is identical to that used in the status quo method. The calculation of import requirements (IRCQ) in coarse terms is shown above, and the appropriate calculation of coarse domestic requirements (DR) for the nutrition-based method is:

$$(15) \quad DR = PR + IRCQ.$$

The following points should be noted on procedures used in the nutrition-based calculations:

1. Calories available from a commodity are derived using the 1979-81 FAO food balance data for a particular commodity and country. Where significant differences exist between ERS and FAO production, trade, or consumption, ERS revises the caloric estimates for consistency with ERS supply and use data.

2. The base period used in calculating each commodity's caloric share in the diet in each country is 1979-81, unless the average suggests use of 1 of the 3 years individually.

3. Calculations of coarse per capita consumption from the targeted coarse total use and population data provided may yield slightly different levels for 1985 and 1986. They may vary from year to year because no nonfood use (other than feed use), waste, alcoholic beverage use, or seed use is deducted from imports and the mix of imports and domestic availability may change from year to year. At the levels shown for targeted coarse total use and population, however, actual per capita consumption of a commodity will be identical in both years.

4. For many countries, the proportion of feed use implied in the 1979-81 FAO food balances is very similar to that implied by the estimates of feed use (DRF) in this report. Where significant differences occurred, adjustments were made in

the base-period human consumption levels ($PCCAL_{iB}$ and $PCCAL_{TB}$) for the purposes of the nutrition-based calculations. These alterations were judged necessary to allow the use of a common assumption on feed use for both methods, and to prevent differences in feed assumptions from interfering with the interpretation of the two food need estimates.

5. Because rice is normally traded on a milled (as opposed to paddy) basis, and all rice production, stock, and trade data presented in this report are on a milled basis, the nutrition-based import requirement equations used for rice are modified to accommodate this difference.

Import requirements estimated this way would provide enough food per person to meet the FAO recommended minimum daily caloric intake level. The FAO caloric standards have been criticized for overestimating minimum requirements and the FAO food balance assumptions used in the calculations have also been criticized for their accuracy. In regard to the caloric standards, the key issue is whether they introduce any bias across the countries examined. Because the caloric standards are derived using a similar methodology across all countries, it is unlikely that significant bias is introduced. In any event, errors in absolute levels of estimates do not prevent the use of those estimates in generating country rankings.

The FAO food balance assumptions are considered to be of comparable reliability for all countries covered, and the methods used for calculating food balances are consistent. Therefore, it is considered unlikely that significant bias across countries is introduced by their use.

Calculating Feed Use

The same levels of estimated feed use are included in the calculation of both the status quo and nutrition-based estimates of total and import requirements. The procedure used to calculate feed use (DRF) of a particular commodity in a given country and year is:

$$(16) \quad DRF = P * PCCF_B/100$$

where P is population in thousands as defined earlier, and

PCCF = per capita utilization of a commodity for livestock feed (source: ERS estimates), and

The subscript B designates the base period years over which PCCF is averaged.

With this method of calculation, feed use grows from the base period average at the same rate as population. The implication, which is intended for the purpose of additional food need estimates, is that no growth in per capita feed use is provided for. The representativeness of the base period average must, however, be scrutinized when interpreting the calculated levels of feed use. Import requirement estimates for countries experiencing rapid growth in feed use (and livestock production) are constrained by this procedure.

Calculating Food Security Stock Adjustments

This report provides separate estimates of countries' cereal stock levels to ensure food security. Stock requirements are segregated from consumption requirements because, for allocation purposes, ensured food supplies to support consumption may be viewed as the first priority. In addition, the reliability of stock information across countries varies much more widely than consumption. Nevertheless, a program that adjusted additional food need allocations to recipient countries' stock positions could help prevent food emergencies in these countries, and also help reduce abrupt swings in additional food needs from year to year. This would be achieved by allowing for stock building in relatively good years, or when stocks are relatively low, and for stock drawdown in relatively bad years, but only when stocks are relatively high.

In this report, estimates of stock adjustments are made only for the commodity group comprising cereals and cereal equivalents for countries where historical stock data are available. Stock adjustment estimates are limited to the cereal-equivalent category because historical stock data commonly are available only for this commodity group, and because cereals are the predominant food staple in the countries covered in this report. The procedures for estimating stock adjustments outlined below use historical relationships between stocks and consumption in each country. The observed historical ratios of stocks to consumption are used to define the range of adjustment, given the absence of consistent data on stock-building targets and minimally acceptable stock levels to be drawn down to in each country.

The procedures are outlined below in algebraic form. Stock levels are calculated in absolute terms and in terms of increments to be added to (or subtracted from) existing stocks. These increments are then added to estimates of import requirements and additional food needs to support consumption in order to obtain an estimate of total additional needs to support both consumption and stocks. The following variables are used in estimating stock adjustments:

TPCE = total production of cereals and cereal equivalents (quantity);

TCEES = total ending stocks of cereals and cereal equivalents (quantity);

ESR = ratio of ending stocks to total nonfeed use;

$MNESR_B$ = average ratio of ending stocks to total nonfeed use for cereal equivalents during base period B (1977-1984 in this report);

$MXESR_B$ = maximum ratio of ending stocks to total nonfeed use for cereal equivalents during base period B;

$MINESR_B$ = minimum ratio of ending stocks to total nonfeed use for cereal equivalents during base period B;

SQNFU = status quo based estimate of domestic requirements for nonfeed use (DRNF quantity);

The subscript t is the year for which the stock adjustment is being calculated;

ASL = adjusted stock level (quantity);

SAQ = stock adjustment in terms of the increment to existing stocks (quantity); and

SAV = stock adjustment (value).

Using the above-named variables, the adjusted stock level (ASL) for year t (the first forecast year) is calculated in the following way:

If $TPCE_t \geq$ trend and $ESR_{t-1} \leq 1.1 * MNESR_B$:

$$ASL_t = (ESR_{t-1} + (MXESR_B - ESR_{t-1})/3)*SQNFU_t$$

If $TPCE_t \geq$ trend and $ESR_{t-1} > 1.1 * MNESR_B$:

$$ASL_t = ESR_{t-1} * SQNFU_t$$

If $TPCE_t <$ trend and $ESR_{t-1} < .9 * MNESR_B$:

$$ASL_t = (ESR_{t-1} + (MXESR_B - ESR_{t-1})/3) * SQNFU_t$$

If $TPCE_t <$ trend and $1.1 * MNESR_B \geq ESR_{t-1} \geq .9 *MNESR_B$:

$$ASL_t = ESR_{t-1} * SQNFU_t\text{, and}$$

If $TPCE_t <$ trend and $ESR_{t-1} > 1.1 * MNESR_B$:

$$ASL_t = ((ESR_{t-1} + MINESR_B)/2 *SQNFU_t.$$

The stock adjustment for year t in quantity (SAQ_t) and value (SAV_t) terms is calculated as:

$$SAQ_t = ASL_t - TCEES_{t-1}\text{, and}$$

$$SAV_t = SAQ_t * IUV_t$$

where IUV_t is the estimated import unit value for cereals in year t as defined in the following section.

The adjusted stock level for (ASL) for year t+1 (the second out year) is calculated using the identical equations as for year t with the following substitutions:

1. The subscript t+1 is substituted for the subscript t.

2. The variable $AESR_t$ (adjusted ending stock ratio in year t) is substituted for ESR_{t-1}, where $AESR_t = ASL_t/SQNFU_t$

The stock adjustment for year t+1 in quantity (SAQ_{t+1}) and value (SAV_{t+1}) is calculated as:

$SAQ_{t+1} = ASL_{t+1} - ASL_t$, and

$SAV_{t+1} = SAQ_{t+1} * IUVt+1$.

Stock adjustments calculated by the procedures described above have the following characteristics:

1. If production is above trend, stocks are built up if they are relatively low and are allowed to remain "high" if they are already "high." "High" is defined as a ratio of stocks to total use greater than 10 percent above the average for the base period. If production is below trend, stocks are built up if they are "low" (10 percent or more below that given by the average base period ratio of ending stocks to total use), left unchanged if they are around the base period mean, and drawn down if they are "high." If stocks are "low," stock building is allowed for in both above- and below-trend production situations for reasons of food security.

2. The rates of stock adjustment used in the calculations are, when building, one-third of the difference between the base period maximum stock ratio and the current stock ratio, and when drawing down, one-half the difference between base period minimum stock ratio and the current stock ratio. A faster rate is used for drawing down than for building because stocks are generally drawn down more rapidly than they are rebuilt. The one-third rate used for stock building implies a 3-year stock building period.

3. The procedures assume the reasonableness of working with minimum, maximum, and mean ending stock ratios observed during the base period, given the lack of consistent data on appropriate stock targets and minimum acceptable stock levels. Moreover, government stock targets, where available, may not be consistent with either historically achieved stock levels or existing storage facilities. The use of adjustments toward, rather than to, the base-period levels diminishes the effect of errors caused by atypical base period observations.

4. The magnitude of year-to-year stock adjustments (SAQ, SAV) depends on both the calculated change in the ending stock ratio in t+1 and the difference between actual total nonfeed use in t and status quo-based nonfeed use (SQNFU) in t+1. In some cases, abrupt changes in actual and calculated nonfeed use between t and t+1 may distort the intended direction of the stock adjustment. (For example, even if the situation calls for an increase in the ending stock ratio (ESR), stocks could decline from t to t+1 if the status quo estimate of nonfeed use (SQNFU) for t+1 was sharply below actual use in t.) These situations are described in the country narratives.

5. The stock adjustment estimates (SAQ, SAV) can be applied to the consumption estimates for cereals to obtain an overall estimate of import requirements ($IRTQ_{ce}$, $IRTV_{ce}$) and additional food needs ($AFNTQ_{ce}$, $AFNTV_{ce}$) for cereals in the following way:

a. If $IRCQ_{ce}$ and $IRCV_{ce}$ are negative (implying a surplus of cereals for consumption purposes that can be applied to stock adjustments):

$IRTQ_{ce} = IRCQ_{ce} + SAQ$;

$IRTV_{ce} = IRCV_{ce} + SAV$;

$AFNTQ_{ce} = AFNCQ_{ce} + SAQ$

subject to

$IRTQ_{ce} > 0$;

$AFNTV_{ce} = AFNCV_{ce} + SAV$,

subject to

$IRTV_{ce} > 0$.

If import requirements remain negative after adding the stock adjustment, additional food needs are not affected. This situation implies a surplus of cereals above what is needed to support consumption and stock adjustment, but a surplus that cannot be exported for foreign exchange or applied against deficits in other nonsubstitutable food categories.

b. If $IRCQ_{ce}$ and $IRCV_{ce}$ are positive (implying a deficit in cereals and no surplus of cereals that can be applied to stock adjustments):

$IRTQ_{ce} = IRCQ_{ce} + SAQ$;

$IRTV_{ce} = IRCV_{ce} + SAV$;

$AFNTQ_{ce} = AFNCQ_{ce} + SAQ$; and

$AFNTV_{ce} = AFNCV_{ce} + SAV$.

Calculating Maximum Absorbable Food Needs

The calculation of maximum absorbable imports and additional food needs is an attempt to estimate the level of imports that could be handled if the highest historical levels of per capita total use and absolute carryover stocks could be attained. The implicit assumption is that the food delivery systems of many of the countries involved have been fully "loaded" by past high levels of consumption. In addition, the highest level of stocks maintained over the previous 8 years is assumed, in the absence of better information, to be the largest level that can currently be maintained. The estimate is intended to provide a crude measure of the amount of food that can be physically absorbed. This level may then be used to scale back nutrition-based additional food need estimates that may be beyond the physical limits of a country's transportation, distribution, and storage capabilities. No attempt is made (here or elsewhere in the report) to assess the impact of such maximum levels on domestic prices or production incentives.

These estimates are for individual countries only. No accounting is made of the impact of "loaded" ports in other countries on the capacity to make shipments to landlocked countries. This can be an especially acute problem in Southern and East Africa.

The maximum absorbable level of imports for commodity group j is:

$$(17)\quad MAXIM_j = P * MAJ\ (PCC_j) + MAX\ (ES) - PR_j,$$

where:

MAXIM = the maximum absorbable level of imports,

MAX (PPC_j) = the maximum of per capita total use in the base period (1977–1984);

P = forecast population;

MAX (ES) = largest absolute level of ending stocks over the last 8 years;

PR_j = forecast production of commodity group k.

The maximum level of absorbable imports is used as a constraint on the nutrition-based additional food needs, which become the smallest of (in quantity terms):

$$(18)\quad MAXIMQ_j - CICQ_j$$

or:

$$(19)\quad IRCQ_j + SAQ_j - CICQ_j$$

where IRCQ is nutrition-based import requirements to support consumption, and SAQ is the food security stock adjustment in the case of the cereal equivalent commodity group.

Calculating Import Unit Values

Import unit value (IUV) estimates are used in this report to convert tonnage import requirements (IRCQ) to value estimates (IRCV), and to convert estimated commercial import capacities in dollars (CICV) to tonnage terms (CICQ). Import unit values are computed for each country, year, and commodity group j as follows:

$$(20)\quad IUV_j = (IUV_{jB}) * FUSXUV$$

where:

IUV_{kB} =	a country's average import unit value for commodity j during base period B (1981–83 in this report). In some cases, lack of current data has necessitated the estimation of country import unit values from those of nearby countries (sources: FAO and ERS).

$USXUV_{jB}$ = the average U.S. export unit value for commodities in group j during a base period B. The average U.S. export unit values used for each commodity group in the report are as follows: cereal equivalent = wheat; vegetable oils = soybean oil, pulses = dry beans, milk = nonfat dry milk converted to fluid equivalent.

$FUSCUV_j$ = the forecast U.S. export unit value for commodities in group j for the appropriate year (source: ERS).

Estimated import unit values are, therefore, dependent on a base-period ratio between a country's import unit value and the U.S. export unit value for a particular commodity, and on the forecast U.S. export unit value of that commodity. The use of the base-period ratio is intended to compensate for differences in transportation costs to various countries from both U.S. and non-U.S. ports, depending on who the base period suppliers were, as well as quality differences between what a country normally purchases and the U.S. average quality.

Calculating Commercial Import Capacity

A country's capacity to pay for imports of food staples is calculated in two steps. The first formula measures the country's available foreign exchange and is as follows: (all values are in million US $):

$$FEA = MEE - [(IR_B/MI_B * MI) - IR] - DS; \tag{1}$$

where:

FEA = estimated foreign exchange availability;

MEE = projected merchandise export earnings (sources: World Bank and ERS);

IR_B = international reserves during the base period (sources: IMF and World Bank);

MI_B = merchandise imports during the base period (sources: IMF and World Bank);

MI = projected merchandise imports (sources: World Bank and ERS);

IR = projected international reserves (sources: World Bank and ERS);

DR = projected debt service (sources: World Bank and ERS); and

B = the base period over which IRC and MI are averaged, (in this report, 1981-84).

Simply put, this formula states that the foreign exchange available for commercial food imports depends on export earnings, less any allowance for the accumulation or drawdown of reserves and debt service payments. The allowance for reserves is based on the notion that during the projection period a country be permitted to maintain a ratio of reserves to imports equal to the ratio in the base period. The term within the brackets determines the allowance for the accretion of reserves.

To illustrate, take the case of Ethiopia, where, for 1986:

$MEE = 880$

$IR_B = 130$

$MI_B = 997$

$MI = 1222$

$IR = 97$

$DS = 82$

(2) $FEA = 880 - [(130/997 * 1222) - 97] - 82$

(3) $FEA = 880 - [.1064 * 1222) - 97] - 82$

(4) $FEA = 880 - [146.3 - 97] - 82$

(5) $FEA = 880 - [49.3] - 82$

(6) $FEA = 749$

Equation (3) indicates that, from 1982 to 1984, Ethiopia held reserves equal to about 11 percent of imports. After multiplication of this figure by the 1986 import projection, equation (4) shows that $146 million of reserves are needed to maintain the same reserves/imports ratio. Equation (5) shows the amount of reserves that Ethiopia will accumulate—the difference between reserves needed to maintain the base-period ratio and projected reserves. Equation (6) indicates the available foreign exchange for Ethiopia in 1986.

The next step in the formula determines the amount of available foreign exchange to be applied toward commercial imports of foods in a particular group of substitutable foods (cereals, roots and tubers, pulses, vegetable oils, etc.) designated by the subscript j. This step is specified as follows:

(7) $CICV_j = FEA * (CFI_j/MEE)_B$

Where:

$CICV_j =$ Estimated commercial import capacity for food commodities in group j;

$FEA =$ estimated foreign exchange available as derived from part 1 of the formula;

CFE_{jB} commercial food imports of commodities in group j during the base period (sources: FAO and ERS);

$MEE_B =$ merchandise export earnings during the base period (sources: IMF and World BAnk); and

$B =$ the base period over which CFI and MEE are averaged (in this report, 1982–85)

This method projects the ability of a country to purchase food imports, based on the percentage of export earnings spent on food imports during the base period.

To continue the illustration with Ethiopia for the food group consisting of cereals, where:

$FEA = 749$

$CFI_{jB} = 15.3$

$MEE_B = 810$

$CICV_j = 749 * (16.6/810)$

$CICV_j = 749 * (.0205)$

$CICV_j = 15.3$

Equation (9) indicates that Ethiopia spent roughly 2 percent of its export earnings on imports of cereals during the base period. For the purpose of additional food needs assessment, it is expected that the same percentage, or $15 million, of its available foreign exchange will be committed to import food staples in 1986/87.

A few shortcomings of this method should be noted. Countries that historically have spent a greater share of export earnings on food imports will be expected, for the purpose of this assessment, to spend the same share in forecast years. In contrast, countries that spend relatively little on food will be expected to continue spending that lower ratio.

Furthermore, countries whose base-period reserves-to-imports ratio is high may be permitted to accumulate reserves at a faster rate than countries with a lower ratio. Finally, because debt service projections, in many cases, are based on historical levels of actual payment in relation to export earnings and not on actual debt service obligations, forecasts of debt service may be understated.

APPENDIX A

Production Variation for Grains in Selected FNA Countries

Recently questions have been raised concerning the variability of production in the countries that go into the World Food Needs and Availabilities annual and supplementary reports. The annual report is the prime focus of the concern; much of the world's crop for the coming marketing year is as yet unknown. Forecasts for the 1986/87 year are largely based on assumptions of "normal" weather, as well as no other extraordinary circumstances.

Data were analyzed for those countries with consistent estimates of production back to 1955. The tables below reflect simple measures for 1955–85, as well as for 1955–65, 1966–75, and 1976–85. Average annual year-to-year changes in production, as well as the standard error of those changes, are shown for selected countries for total grains, wheat, rice, corn, sorghum, and millet.

The most striking result of a close examination of the data herein is that the assumption (see the Introduction) of strong substitutability between grains in production is at least crudely confirmed. Variation, as measured by the standard deviation of percent changes, is strongly higher for individual grains than for the cereal aggregates.

Average percentage change in total grain production, selected countries, from 1955 to 1985, 10-year intervals, and standard deviations of those changes

Country	Average percent change				Standard deviation			
	1956-85	1956-65	1966-75	1976-85	1956-85	1956-65	1966-75	1976-85
Costa Rica	6.26	5.06	6.06	7.02	16.95	12.16	19.53	18.31
Dominican Republic	5.06	4.62	5.96	4.87	10.43	5.26	15.74	6.59
El Salvador	5.26	6.80	4.53	3.88	21.56	26.47	22.30	12.70
Guatemala	4.24	3.35	3.96	3.51	7.27	5.73	8.37	7.47
Haiti	0.36	1.29	-2.22	2.13	14.09	0.65	11.60	21.88
Honduras	3.18	2.43	0.91	5.86	11.36	4.28	9.26	16.94
Jamaica	-0.37	-7.87	10.00	-0.44	30.74	25.57	22.41	39.76
Nicaragua	4.01	3.22	3.38	6.04	17.33	8.79	21.51	19.03
Bolivia	5.02	4.12	4.08	7.16	18.03	13.66	6.34	28.09
Colombia	3.42	3.35	5.00	1.66	8.81	8.14	7.01	10.78
Ecuador	4.03	4.26	2.59	6.37	15.66	6.23	15.96	21.35
Paraguay	7.70	4.45	11.56	5.68	21.84	22.06	24.98	16.43
Peru	2.98	4.89	3.28	2.28	13.83	5.17	11.67	20.76
Angola	0.49	4.96	1.21	-2.95	12.50	14.28	11.34	10.05
Burundi	2.94	3.45	2.95	1.69	14.76	12.00	19.50	10.86
Cameroon	2.68	4.77	2.75	2.01	13.05	11.70	16.90	8.66
Benin	4.87	4.42	1.49	9.39	19.06	24.39	13.75	16.31
Egypt	1.99	2.26	2.50	0.59	6.99	10.10	4.01	4.92
Ethiopia	1.76	2.03	0.30	3.26	10.13	5.00	5.70	16.18
Ghana	4.88	5.46	2.84	7.01	25.95	14.52	13.86	41.38
Guinea	1.84	0.82	2.33	2.09	12.79	15.30	12.44	9.67
Kenya	3.69	3.85	3.95	4.05	14.71	6.54	9.63	23.39
Liberia	2.23	-1.23	5.51	2.32	9.86	14.47	5.72	4.38
Madagascar	2.78	6.77	1.49	0.79	6.77	8.48	3.96	5.20
Malawi	3.59	7.17	0.76	2.92	11.44	8.07	15.94	6.57
Mali	2.56	2.23	2.30	3.46	19.90	11.57	14.84	29.69
Morocco	12.49	11.75	16.52	8.88	53.84	58.98	45.93	55.67
Mozambique	0.43	1.78	-3.57	3.69	14.80	3.47	14.09	21.02
Niger	5.23	0.22	8.71	6.64	23.74	6.02	30.33	26.65
Zimbabwe	12.66	6.79	14.74	15.09	41.89	32.32	44.57	47.32
Rwanda	3.94	3.61	2.38	5.47	21.39	29.68	12.85	17.54
Senegal	8.71	4.92	10.92	11.62	34.82	10.95	42.81	41.32
Sierra Leone	1.69	3.20	2.90	-0.77	6.98	4.16	6.56	8.93
Sudan	12.64	-0.67	14.59	25.53	53.56	14.20	40.09	82.87
Tanzania	5.76	6.32	7.87	4.15	15.20	13.66	19.57	10.22
Togo	4.10	8.05	-1.42	6.36	17.55	21.89	17.44	8.12
Tunisia	10.69	4.78	13.26	11.92	36.08	42.94	25.96	36.76
Uganda	1.88	1.40	4.07	0.23	9.19	10.82	4.98	10.30
Burkina	4.51	6.31	0.59	7.29	19.52	19.61	16.01	22.06
Zaire	2.67	-2.55	7.50	3.48	10.63	13.84	8.44	3.92
Zambia	8.70	18.32	3.27	1.53	25.45	32.05	17.06	20.90
Afghanistan	1.51	0.24	3.18	0.26	6.77	6.19	8.22	4.87
Bangladesh	3.60	2.02	2.64	3.70	9.16	11.29	9.95	4.15
Sri Lanka	4.98	6.20	4.14	7.67	13.83	14.12	15.31	11.32
India	3.16	0.91	4.65	3.99	8.85	6.43	9.27	10.10
Indonesia	3.94	3.17	3.15	6.01	7.60	8.65	7.81	5.45
Cambodia	5.69	2.40	5.83	8.67	42.58	10.22	48.29	55.81
Laos	4.78	4.00	3.27	6.95	17.80	13.65	19.45	19.64
Lebanon	1.36	4.46	6.39	-7.13	38.07	29.63	54.19	17.95
Nepal	1.63	1.99	1.96	2.06	9.53	6.16	6.21	14.42
Pakistan	4.26	2.26	7.37	3.01	7.09	3.68	9.70	5.06
Philippines	4.05	3.44	5.72	3.15	7.15	5.50	10.22	3.32
Vietnam	3.34	1.61	3.84	2.98	8.27	10.30	6.93	6.80

Average percentage change in wheat production, selected countries, from 1955 to 1985, 10-year intervals, and standard deviations of those changes

	Average percent change				Standard deviation			
Country	1956-85	1956-65	1966-75	1976-85	1956-85	1956-65	1966-75	1976-85
Guatemala	5.39	7.56	5.61	5.77	17.43	17.56	17.82	18.07
Bolivia	9.97	19.86	4.34	5.08	34.86	44.75	26.51	26.91
Colombia	1.63	0.71	-3.85	2.54	27.01	26.65	32.74	24.59
Ecuador	-0.10	4.01	-0.11	-4.31	22.18	16.52	11.45	30.73
Peru	-0.05	0.37	0.29	-1.15	16.85	12.17	10.38	23.28
Angola	7.98	20.46	-0.28	1.91	38.74	38.16	37.88	35.78
Burundi	10.87	5.02	26.50	2.63	54.21	29.23	79.45	34.40
Egypt	1.36	-1.05	5.63	0.26	10.10	7.07	12.94	7.82
Ethiopia	1.23	2.42	-2.45	1.22	13.51	10.18	9.97	18.90
Kenya	6.41	4.49	0.70	13.30	35.08	20.48	17.95	51.00
Morocco	10.97	14.33	6.84	9.31	48.15	48.32	42.77	50.68
Mozambique	11.19	27.17	1.42	4.55	45.83	49.45	49.08	31.05
Zimbabwe	-NA-	47.64	11.26	-NA-	-NA-	44.88	39.08	-NA-
Sudan	8.45	13.38	19.16	-5.26	24.18	13.70	21.92	25.99
Tanzania	14.18	22.10	15.07	6.86	45.16	67.13	35.11	15.44
Tunisia	8.97	8.42	9.76	8.75	32.32	34.30	27.79	32.81
Zaire	9.61	-0.83	9.17	15.61	44.17	20.56	67.54	28.65
Zambia	-NA-	-NA-	-NA-	-NA-	-NA-	-NA-	-NA-	-NA-
Afghanistan	1.59	1.20	2.76	0.92	9.07	8.52	12.03	4.99
Bangladesh	17.00	3.68	15.31	28.98	26.21	13.60	25.43	29.00
India	6.20	3.79	8.19	6.99	13.19	13.03	16.36	8.31
Lebanon	1.90	3.61	11.98	-12.10	40.66	31.15	58.86	17.47
Nepal	6.11	0.18	12.46	5.84	16.16	4.50	23.44	11.22
Pakistan	4.94	3.82	6.37	4.26	11.04	4.51	16.09	8.75

Average percentage change in rice production, selected countries, from 1955 to 1985, 10-year intervals, and standard deviations of those changes

Country	Average percent change				Standard deviation			
	1956-85	1956-65	1966-75	1976-85	1956-85	1956-65	1966-75	1976-85
Costa Rica	8.18	10.69	9.18	4.67	22.70	26.16	13.97	25.43
Dominican Republic	5.70	6.32	3.60	7.19	12.52	7.90	13.64	14.65
El Salvador	9.66	5.34	13.95	9.70	32.64	28.28	41.54	25.17
Guatemala	8.99	5.26	17.15	4.57	29.93	17.27	39.58	26.90
Haiti	6.09	5.69	5.80	6.77	25.47	11.03	29.06	31.30
Honduras	10.48	3.63	14.95	12.85	35.94	8.18	47.29	38.72
Jamaica	3.97	-12.75	5.00	19.67	44.25	35.70	35.00	53.36
Nicaragua	9.78	9.43	13.76	6.13	20.43	11.44	10.58	31.30
Bolivia	13.95	15.24	11.25	15.36	41.28	12.04	20.01	67.50
Colombia	6.57	7.93	9.80	1.97	11.76	7.09	11.83	13.82
Ecuador	6.64	3.52	10.69	5.70	26.61	17.28	30.11	29.86
Peru	6.18	3.63	8.25	6.65	25.02	20.93	25.94	27.48
Angola	5.31	6.35	3.58	6.00	34.77	17.79	54.32	18.85
Burundi	25.60	11.67	60.08	5.05	93.12	35.00	150.95	14.03
Cameroon	16.49	16.40	14.62	18.44	39.42	46.44	37.69	32.83
Benin	12.59	0.00	34.11	3.66	32.68	0.00	36.99	33.68
Egypt	3.88	8.21	3.77	-0.35	20.64	32.56	12.50	5.01
Ghana	7.88	3.84	9.17	10.63	24.78	16.32	14.97	36.41
Guinea	3.55	2.96	1.54	6.15	16.84	22.75	10.87	14.28
Ivory Coast	9.63	17.96	4.72	6.22	30.68	47.56	15.69	14.52
Kenya	12.45	25.61	9.27	2.46	36.62	59.04	12.49	9.95
Liberia	2.35	1.19	2.99	2.86	10.42	14.19	10.19	4.31
Madagascar	2.75	4.85	2.29	1.10	6.70	8.89	4.65	5.16
Malawi	17.44	3.17	48.28	0.88	66.19	37.12	100.79	13.31
Mali	4.63	1.15	8.90	3.83	30.28	14.04	36.32	34.71
Morocco	12.41	-1.79	53.46	-14.45	84.65	16.50	133.04	30.31
Mozambique	0.54	2.09	-3.90	3.44	23.09	10.81	17.79	33.70
Niger	11.51	12.38	14.18	7.97	27.39	28.17	33.50	17.74
Senegal	12.25	7.31	18.80	10.65	50.77	15.74	67.98	52.86
Sierra Leone	1.90	3.65	3.02	-0.96	7.16	4.24	6.89	8.72
Tanzania	7.92	3.88	15.14	4.74	23.53	30.58	22.52	11.86
Togo	7.22	9.33	3.97	8.35	35.74	44.53	29.94	30.62
Burkina	10.64	9.17	2.03	20.72	49.29	34.53	14.11	75.63
Zaire	3.32	-10.79	17.63	3.12	20.79	16.74	24.61	2.62
Zambia	-NA-	21.22	-NA-	-NA-	-NA-	77.45	-NA-	-NA-
Afghanistan	2.18	3.56	1.87	1.09	7.50	5.96	10.48	4.51
Bangladesh	5.25	5.72	2.46	7.57	15.07	13.08	10.13	19.85
Sri Lanka	4.01	1.43	5.78	4.82	16.32	15.26	16.91	16.43
India	3.41	1.35	5.27	3.61	13.35	11.75	10.39	16.76
Indonesia	1.94	1.89	1.80	2.12	8.43	5.65	9.88	9.15
Cambodia	6.72	3.52	5.63	11.01	45.45	11.69	52.51	57.22
Laos	4.89	4.61	-1.38	11.45	18.28	13.83	13.54	23.35
Nepal	1.17	2.42	2.41	-1.32	15.98	11.00	11.80	22.28
Pakistan	5.80	4.74	7.74	4.92	15.16	5.77	11.95	22.53
Philippines	4.91	2.33	0.55	11.85	19.27	5.09	15.80	27.66
Vietnam	3.36	4.45	1.47	4.16	8.78	10.82	7.04	7.71

Average percentage change in corn production, selected countries, from 1955 to 1985, 10-year intervals, and standard deviations of those changes

Country	Average percent change				Standard deviation			
	1956-85	1956-65	1966-75	1976-85	1956-85	1956-65	1966-75	1976-85
Costa Rica	6.79	4.65	9.61	6.10	32.24	18.06	41.43	32.59
Dominican Republic	4.20	-2.69	-0.99	16.27	24.05	6.49	11.30	36.67
El Salvador	7.01	6.49	12.07	2.47	24.57	25.37	29.56	15.73
Guatemala	4.10	6.13	3.54	2.61	8.50	7.08	9.29	8.59
Haiti	-0.29	0.82	-2.22	0.52	17.45	1.98	8.38	28.88
Honduras	3.66	3.28	2.01	5.68	11.72	5.30	9.51	16.92
Jamaica	9.80	16.00	12.72	0.69	68.43	99.35	24.29	58.80
Nicaragua	3.38	2.52	7.62	-0.01	21.61	12.22	29.43	18.85
Bolivia	4.39	4.36	1.09	7.72	16.61	19.67	4.94	19.86
Colombia	0.29	1.70	0.28	-1.11	8.12	9.85	6.19	7.65
Ecuador	7.53	4.30	6.81	11.47	25.72	6.71	16.94	40.33
Peru	3.98	7.00	1.30	3.64	12.34	10.66	5.32	17.28
Angola	0.92	4.10	3.05	-4.39	16.00	20.03	14.64	10.46
Burundi	2.90	4.44	3.08	1.18	15.13	20.62	11.63	11.01
Cameroon	4.16	5.03	9.23	-1.78	19.28	17.09	24.92	11.84
Benin	6.23	8.08	0.98	9.62	20.42	23.29	14.29	21.49
Egypt	2.96	2.95	2.78	3.14	8.63	12.12	5.05	7.14
Ethiopia	4.20	3.32	6.70	2.58	19.13	5.55	19.02	26.38
Ghana	6.43	2.67	8.36	8.26	28.21	10.30	28.16	38.29
Guinea	-0.77	2.58	-4.52	-0.36	16.36	10.55	20.16	16.11
Ivory Coast	11.14	17.81	8.86	6.76	34.72	51.13	18.82	24.06
Kenya	4.82	3.72	4.97	5.77	16.46	9.51	13.55	23.16
Liberia	1.00	1.38	1.09	0.52	7.86	8.08	5.20	9.64
Madagascar	4.36	10.64	1.72	0.72	17.75	26.14	11.31	8.60
Malawi	3.54	5.45	1.38	3.78	11.15	6.96	16.49	6.63
Mali	6.41	6.18	2.42	10.62	28.04	20.23	31.65	30.24
Morocco	14.75	20.08	10.32	13.85	66.09	76.00	44.09	73.04
Mozambique	0.93	-0.11	-0.55	3.44	17.94	4.25	18.69	24.27
Niger	10.55	9.17	9.17	13.32	39.98	36.60	28.49	51.30
Zimbabwe	16.13	9.33	23.28	15.78	48.84	34.97	58.32	49.34
Rwanda	9.57	17.56	5.99	5.17	40.65	65.23	20.05	14.33
Senegal	11.82	6.39	19.97	9.09	41.38	14.05	63.58	28.17
Sierra Leone	1.28	-0.37	2.83	1.36	9.53	10.11	5.95	11.38
Sudan	10.98	11.37	21.95	-0.39	48.33	66.66	44.84	17.39
Tanzania	5.86	4.90	7.97	4.72	17.74	16.63	23.20	11.10
Togo	6.25	6.25	7.37	5.14	18.21	19.22	18.92	16.27
Uganda	5.00	7.07	7.97	-0.06	16.96	14.46	17.50	17.56
Burkina Faso	7.66	4.57	0.88	17.53	42.51	34.15	23.05	59.75
Zaire	3.16	-2.95	8.63	3.79	10.52	8.27	13.06	5.02
Zambia	12.64	30.22	4.30	3.42	33.16	44.71	19.33	21.50
Afghanistan	1.75	3.95	1.02	0.29	6.08	7.39	6.38	2.86
Bangladesh	6.99	19.31	-3.33	5.00	54.80	86.15	10.00	35.00
Sri Lanka	9.89	5.88	15.79	7.99	25.92	26.77	31.63	15.60
India	4.04	4.50	6.25	1.38	14.15	5.40	20.47	11.84
Indonesia	6.84	6.31	7.07	7.14	29.69	31.03	33.43	23.73
Cambodia	1.53	3.60	-6.18	7.17	28.47	33.53	14.11	31.82
Laos	5.02	8.10	3.96	3.01	14.12	17.40	13.93	9.31
Nepal	0.19	0.83	-0.73	0.45	8.52	0.52	5.38	13.68
Pakistan	3.19	1.84	4.88	2.85	8.91	6.03	13.17	4.86
Philippines	6.01	7.89	7.58	2.57	10.49	14.85	8.85	3.69
Vietnam	3.62	5.78	0.08	4.99	12.45	17.96	5.92	9.39

Average percentage change in millet production, selected countries, from 1955 to 1985, 10-year intervals, and standard deviations of those changes

Country	Average percent change				Standard deviation			
	1956-85	1956-65	1966-75	1976-85	1956-85	1956-65	1966-75	1976-85
Angola	3.03	-0.33	12.24	-2.81	36.87	9.47	61.77	6.45
Burundi	3.83	-1.96	7.99	5.46	22.27	9.97	34.72	11.36
Cameroon	1.69	5.58	-1.91	1.39	14.37	13.74	13.78	14.58
Benin	6.50	-9.23	20.31	8.43	52.51	39.58	63.38	47.37
Ethiopia	4.44	1.32	15.59	-3.58	29.27	7.06	43.63	20.45
Ghana	7.57	-3.90	10.43	16.19	48.88	10.13	22.94	79.53
Guinea	0.67	-0.31	2.12	0.19	11.14	18.04	5.69	3.39
Ivory Coast	3.45	7.37	0.22	2.76	24.49	33.68	14.26	20.88
Kenya	-0.23	-1.65	2.95	-2.01	16.63	8.12	9.91	25.49
Mali	2.51	1.28	1.83	4.41	19.84	14.14	12.55	28.59
Mozambique	4.15	1.31	7.30	3.86	14.90	2.00	22.67	11.41
Niger	7.27	1.74	5.27	14.81	29.57	6.09	34.65	35.97
Zimbabwe	2.70	6.54	-2.39	3.96	22.27	25.31	13.88	24.75
Rwanda	8.00	5.00	11.67	7.33	44.93	44.13	41.53	48.60
Senegal	9.17	6.58	9.60	11.35	35.54	8.90	41.90	44.07
Sierra Leone	0.53	-1.72	0.20	3.13	15.76	9.13	19.75	16.11
Sudan	7.23	-2.00	8.56	15.14	43.79	21.45	23.94	67.60
Tanzania	5.79	2.02	4.48	10.86	19.06	9.65	16.52	26.11
Togo	4.62	7.68	2.63	3.55	26.23	32.51	29.92	9.91
Uganda	0.35	-1.27	0.25	2.09	9.86	12.04	6.95	9.64
Burkina	6.19	8.89	2.48	7.20	25.75	24.66	18.79	31.73
Zaire	4.61	0.81	11.10	1.91	28.16	32.22	26.69	23.78
Zambia	-2.13	2.00	1.49	-9.87	16.30	4.01	6.98	25.33
Sri Lanka	4.75	4.55	1.03	8.68	34.56	35.08	17.84	44.79
India	3.37	-0.50	9.45	1.15	22.24	10.09	31.38	18.47
Nepal	1.07	2.22	1.83	-0.84	6.19	8.76	3.50	4.52
Pakistan	-0.13	1.98	-0.54	-1.84	15.45	15.97	15.61	14.49

Average percentage change in sorghum production, selected countries, from 1955 to 1985, 10-year intervals, and standard deviations of those changes

Country	Average percent change				Standard deviation			
	1956-85	1956-65	1966-75	1976-85	1956-85	1956-65	1966-75	1976-85
Dominican Republic	-NA-	12.64	-NA-	-NA-	-NA-	32.78	-NA-	-NA-
El Salvador	2.50	3.90	5.96	-2.35	19.30	29.21	12.87	7.79
Guatemala	8.60	15.64	4.85	5.31	19.58	21.58	18.02	16.91
Haiti	0.60	0.23	-1.26	2.83	21.24	0.28	16.75	32.62
Honduras	0.59	-0.93	2.91	-0.20	17.91	9.34	16.37	24.46
Nicaragua	7.02	0.58	9.07	11.43	31.39	12.83	36.61	37.23
Colombia	-NA-	25.88	-4.63	-NA-	-NA-	41.32	34.94	-NA-
Peru	-NA-	28.77	29.45	-NA-	-NA-	44.33	100.39	-NA-
Burundi	6.57	6.42	12.24	1.04	31.51	9.38	51.29	14.06
Benin	-NA-	1.87	7.20	-NA-	-NA-	25.48	19.06	-NA-
Egypt	0.36	4.38	-0.25	-3.04	7.36	7.00	5.34	7.53
Ethiopia	3.31	2.46	-0.11	7.58	20.12	6.99	17.47	28.81
Ghana	5.36	1.73	7.63	6.72	36.36	8.76	31.02	53.91
Ivory Coast	5.01	6.31	6.09	2.63	19.60	30.04	10.04	11.87
Morocco	41.58	37.23	18.35	69.17	169.53	135.25	61.71	250.61
Mozambique	0.49	1.30	-0.05	0.20	13.74	0.43	13.30	19.70
Niger	2.56	-0.19	3.58	4.30	22.27	15.80	30.06	17.95
Zimbabwe	12.82	6.58	18.19	13.70	52.83	59.07	41.07	55.93
Rwanda	3.70	2.96	1.81	6.32	19.75	24.75	12.74	19.60
Sudan	16.32	3.88	15.96	29.12	64.16	17.53	48.66	96.73
Tanzania	6.39	1.46	10.13	7.57	17.38	8.46	22.32	17.22
Tunisia	7.91	15.50	3.93	4.31	33.77	44.03	14.25	34.54
Uganda	4.08	4.67	6.73	0.85	16.05	16.62	16.26	14.64
Burkina	4.83	10.47	1.51	2.50	18.74	18.83	19.01	17.01
Zambia	-1.12	1.77	2.31	-7.44	14.86	1.63	7.92	23.17
India	2.31	2.19	3.25	1.49	12.92	13.87	14.37	10.01
Pakistan	0.53	1.85	1.34	-1.61	12.02	13.78	14.29	5.72

APPENDIX B

Country populations, 1980/81-1987/88

North Africa

	Egypt	Morocco	Tunisia
1980/81	42,135	20,545	6,489
1981/82	43,365	21,046	6,661
1982/83	44,586	22,546	6,833
1983/84	45,851	22,055	7,005
1984/85	47,120	22,579	7,178
1985/86	48,407	23,117	7,179
1986/87	49,709	23,799	7,356
1987/88	51,046	24,501	7,755

West Africa

	Benin	Burkina	Cameroon	Cape Verde	Chad	Gambia	Ghana	Guinea	Guinea Bissau
1980/81	3,456	6,138	8,556	289	4,439	631	10,842	4,765	784
1981/82	3,569	6,268	8,793	293	4,540	653	10,986	4,859	798
1982/83	3,678	6,414	8,083	297	4,766	676	11,193	4,956	812
1983/84	3,792	6,569	9,219	302	4,935	700	11,939	5,057	827
1984/85	3,910	6,733	9,473	306	5,059	725	12,609	5,282	842
1985/86	4,033	6,907	9,737	312	5,036	751	13,004	5,597	858
1986/87	4,174	7,080	10,008	317	5,161	778	13,399	5,765	874
1987/88	4,320	7,257	10,286	322	5,289	805	13,807	5,938	890

West Africa - Continued

	Liberia	Mali	Mauritania	Niger	Senegal	Sierra Leone	Togo
1980/81	1,898	6,919	1,502	5,510	5,765	3,419	2,594
1981/82	1,960	7,076	1,531	5,680	5,947	3,505	2,673
1982/83	2,024	7,237	1,561	5,857	6,138	3,594	2,755
1983/84	2,091	7,404	1,591	6,080	6,335	3,687	2,842
1984/85	2,160	7,560	1,623	6,271	6,541	3,784	2,931
1985/86	2,232	7,721	1,656	6,491	6,755	3,883	3,023
1986/87	2,306	7,882	1,689	6,712	6,968	3,984	3,116
1987/88	2,382	8,047	1,723	6,940	7,187	4,088	3,213

Central Africa

	Angola	Central African Republic	Congo	Equatorial Guinea	Zaire
1980/81	6,993	2,315	1,552	250	26,682
1981/82	7,183	2,382	1,597	256	27,339
1982/83	7,378	2,449	1,644	262	28,248
1983/84	7,558	2,520	1,694	268	28,966
1984/85	7,744	2,592	1,745	275	29,671
1985/86	7,948	2,666	1,798	281	30,505
1986/87	8,153	2,742	1,853	288	31,350
1987/88	8,363	2,821	1,911	295	32,218

East Africa

	Burundi	Djibouti	Ethiopia	Kenya	Rwanda	Somalia	Sudan	Tanzania	Uganda
1980/81	4,071	279	39,207	16,431	5,164	6,109	19,038	18,541	12,763
1981/82	4,178	294	40,188	17,116	5,359	6,701	19,671	19,120	13,080
1982/83	4,293	306	41,308	17,832	5,571	6,970	20,331	19,722	13,438
1983/84	4,416	316	42,113	18,580	5,805	7,153	20,993	20,356	13,827
1984/85	4,543	289	42,266	19,362	6,020	7,371	21,632	21,020	14,237
1985/86	4,673	306	43,882	20,177	6,249	7,595	22,972	21,701	14,689
1986/87	4,805	312	45,071	21,008	6,482	7,822	23,661	22,393	15,149
1987/88	4,940	318	46,292	21,874	6,724	8,056	24,371	23,108	15,623

Southern Africa

	Botswana	Comoros	Lesotho	Madagasgar	Malawi	Mauritius	Mozambique
1980/81	903	406	1,339	8,642	6,021	957	12,109
1981/82	937	418	1,370	8,887	6,209	972	12,365
1982/83	968	430	1,404	9,139	6,406	984	12,702
1983/84	1,000	443	1,438	9,398	6,612	996	13,030
1984/85	1,033	456	1,474	9,665	6,829	1,002	13,244
1985/86	1,067	469	1,512	9,941	7,056	1,011	13,638
1986/87	1,102	483	1,551	10,221	7,287	1,020	14,038
1987/88	1,139	497	1,590	10,510	7,525	1,029	14,449

Southern Africa - continued

	Swaziland	Zambia	Zimbabwe
1980/81	579	5,771	7,338
1981/82	596	5,953	7,619
1982/83	614	6,155	7,848
1983/84	632	6,395	8,138
1984/85	651	6,617	8,461
1985/86	671	6,882	8,678
1986/87	691	7,102	8,898
1987/88	712	7,329	9,123

Middle East

	Lebanon	North Yemen	South Yemen
1980/81	2,649	5,399	9,964
1981/82	2,630	5,535	10,135
1982/83	2,610	5,679	10,316
1983/84	2,598	5,830	10,514
1984/85	2,601	5,989	10,737
1985/86	2,632	6,159	11,001
1986/87	2,664	6,287	11,225
1987/88	2,696	6,418	11,454

South Asia

	Afghanistan	Bangladesh	India	Nepal	Pakistan	Sri Lanka
1980/81	15,245	88,200	687,332	14,992	85,219	15,103
1981/82	14,635	90,700	701,531	15,375	88,417	15,373
1982/83	14,208	93,300	716,985	15,769	91,473	15,647
1983/84	14,177	95,900	733,248	16,169	94,140	15,925
1984/85	14,448	98,300	749,557	16,578	96,628	16,212
1985/86	14,751	100,800	765,298	17,009	99,179	16,503
1986/87	15,061	103,300	781,369	17,451	101,797	16,801
1987/88	15,377	105,600	797,778	17,905	104,484	17,103

Southeast Asia

	Indonesia	Laos	Kampuchea	Philippines	Vietnam
1980/81	147,400	3,458	5,692	49,253	54,904
1981/82	150,800	3,494	5,774	50,544	56,234
1982/83	154,000	3,566	5,882	51,848	57,612
1983/84	157,100	3,647	5,996	53,162	59,030
1984/85	160,400	3,732	6,118	54,486	60,492
1985/86	163,800	3,881	6,240	55,848	61,994
1986/87	167,000	3,906	6,365	57,244	63,533
1987/88	171,000	3,995	6,492	58,675	65,105

Caribbean

	Dominican Republic	Haiti	Jamaica
1980/81	5,695	5,806	2,242
1981/82	5,837	5,922	2,287
1982/83	5,983	6,040	2,332
1983/84	6,133	6,161	2,379
1984/85	6,206	6,285	2,427
1985/86	6,443	6,410	2,475
1986/87	6,600	6,500	2,600
1987/88	6,761	6,500	2,731

Central America

	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua
1980/81	2,329	4,717	7,116	3,772	2,410
1981/82	2,387	4,599	7,407	3,886	2,480
1982/83	2,456	4,691	7,626	4,002	2,552
1983/84	2,523	4,800	7,833	4,123	2,626
1984/85	2,589	4,932	8,078	4,246	2,702
1985/86	2,656	5,100	8,320	4,374	2,780
1986/87	2,725	5,253	8,569	4,505	2,860
1987/88	2,796	5,411	8,825	4,640	2,942

South America

	Bolivia	Colombia	Ecuador	Peru
1980/81	5,349	24,833	7,996	17,625
1981/82	5,476	25,217	8,220	18,119
1982/83	5,608	25,630	8,450	18,631
1983/84	5,742	26,068	8,686	19,161
1984/85	5,880	26,528	8,930	19,708
1985/86	6,021	27,012	9,180	20,273
1986/87	6,165	27,498	9,437	20,854
1987/88	6,312	27,993	9,701	21,453

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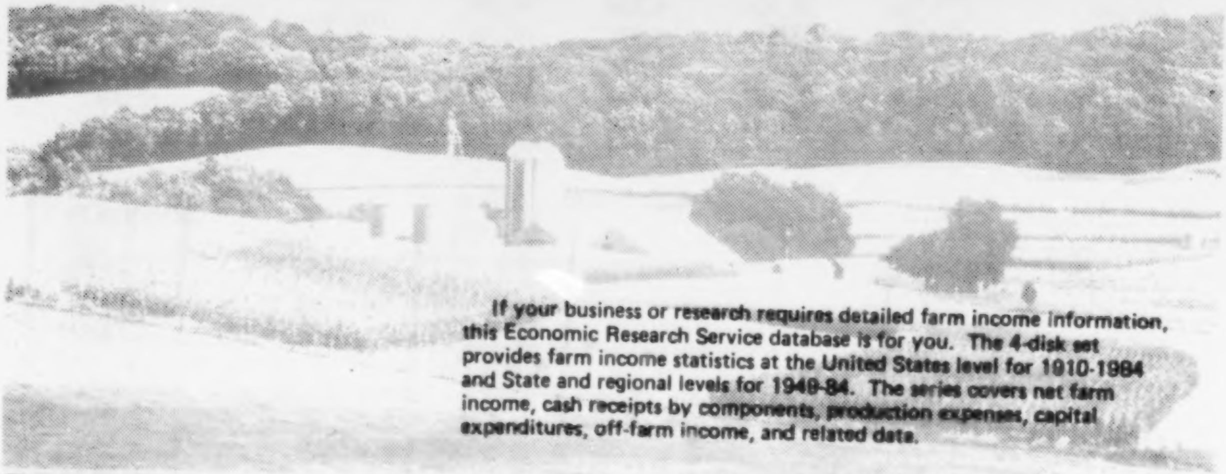

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